Collectanea
Orchidacea
V.

Fr. Kränzlin.

3 März 1908.
14 März 1918.
erhält 222 Diagnosen

Bot. Mag. (1907) t. 8116

Renanthera annamensis Rolfe. differt a R. Imschootiana florib. duplo minorib. & sepalis maculatis — Herba epiphyt. erecta v. subascendens 20-30 cm alta. Radices crassae. Fol. circ. 2cm distantia oblonga obtusa inaequaliter biloba, crasse coriacea 5-7 cm longa 1.5-1.8 cm lata. Racemi interdū ramosi, circ. 20-25 cm longi, os flori. Bract. ovat~~ae~~ oblongae obtusae 2 mm longae. Pedicelli 1cm lgi. Sep. postic. anguste oblongū obtusū, concavū circ. 1.2cm lg. 3.5 mm lt., lateralia spathulata, subobtusa, 1.8 cm lga, 6 mm lta. ~~Lab. 3 lobo~~ Pet. anguste oblonga, obtusa, subconcava 7 mm lga 2mm lata. Lab. 3-lob. 6 mm lgū, lobi laterales erecti, triangulares, acuti, carnosi, 2mm longi, lobus intermedius patens, cordato-orbicularis, obtusus 3.5 mm latus, basi 5-callosus, calcar acutū, oblongū, obtusū, 4 mm longū. Columna lata 3 mm longa. — Annam (Micholitz)

Bot. Mag. (1907) t. 8121.

Saccolabium rubescens Rolfe in Kew Bull. 1906 p. 114. – Orch. Rev. 1906. 220.

Bot. Mag. (1907) t. 8126

Paphiopedilum villosum Pfitz var. annamense Rolfe a typo foliis longioribus & angustioribus, sepalo postico gilvo & disco viridi-atropurpureo-fasciato differt. – Folia suberecta v. arcuata, lineari-oblonga, bidentata 20–40 cm longa 2–2.5 cm lata, saturate viridia, basi bruneo-maculata. Scapus validus villosus 15–25 cm altus viridis bruneo-maculatus 1-florus. Bracteae circ. 4 cm longae ellipt.-oblongae. Flores ampli. Ovarium villosissimũ. Sep. post. erectũ obovato-orbiculare obtusũ ciliolatũ. margine prope apicẽ incurvũ apud basin recurvũ, circ. 4.5 cm lg. gilvũ, disco viride atro-purpureo-fasciatũ. Pet. divaricata obovato-oblonga obtusa ciliolata leviter undulata circ. 6 cm lg. pallide flava, bruneo-fasciata. Labell. calceiforme, circ. 4 cm lgũ ore dilatat. flavũ, fronte

bruneo-suffusū, lobi laterales rostrati. Col
parce villosa, staminod. orbiculari-ellipticū sub-
concavū c. 1.5 cm longū apice tridentatū, basi lobū
medio papilla erecta instructū. – Annam (Micholitz)

Bot. Mag. (1907) t. 8131.
Cymbidium erythrostylum Rolfe in Gard. Chron.
1905 II. 427 & 1906 II. 286 fig. 115. – Orch. Rev.
1906. 39. – Annam (Micholitz)

Bot. Mag. (1907) t. 8133.
Odontioda heatonensis Gard. Chron. 1906 I. 158.
Rolfe Orch. Rev. 1906. 118. Hybr. inter Cochliodam
sanguineum ♂ × Odontoglossū cirrosū ♀
Raised by Charlesworth & Co. Heaton - Bradford.

Bot. Mag. (1907) t. 8141.
Dendrobium Ashworthiae O'Brien in Gard. Chron 1901.
I 86 fig. 36. – Neu-Guinea ? (Micholitz)

Bot. Mag. (1907) t. 8142.

Odontoglossum Leeanum Rchb. f. in Gard. Chron. 1882. I 525; 1883 I 694; 1902 I. 50 (var. Crawshayanum) Will. Orch. Alb. III t. 101; Journ. Hortic. 1901. vol. 43 193 c. ic. Rolfe in Orch. Rev. 1893. 172. 174. Probab. hybrida nat. inter O. gloriosum Lind. & Rchb. f. & O. triumphans Rchb. f. = O. odoratum var. Leeanum Veitch. Man. Orch. I. 56 O. lanceans Rchb. f. var. Leeanum Rchb. f. in Sand. Reichenbachia I. p. 82.

Bot. Mag. (1907) t. 8153.

Angraecum infundibulare Lind. in Journ. Linn. Soc. VI. 136. – Gard. Chron. 1904 II. 82. 103 cum tab. suppl. – Rolfe Orch. Rev. 1905. 311. – Mystacidium infundibulare Rolfe in Fl. Trop. Afr. VII. 170.

Bot. Mag. (1907) t. 8160.

Bulbophyllum dichromum Rolfe in Kew. Bull. 1907. 128. Introd. Sander: Patria ?

Bot. Mag. (1907) t. 8164.

Coelogyne Lawrenceana Rolfe in Gard. Chron. 1905 I 227. – Gard. Mag. 1905. 354 c. ic. Orch. Rev. 1906. 39. Pfitz. & Kränzl. Coelogyninae l.

Bot. Mag. (1907) t. 8171.

Eria longispica Rolfe. E. latifoliae Rchb. f. affinis differt floribus majoribus labello circuitu orbiculari nec obovato. – Herba epiphytica non pseudobulbosa. Caules erecti robusti 15 cm alti 6–8-phylli. Fol. disticha coriacea, ligulato-oblonga apice obliqua inaequaliter biloba & acuta 30–40 cm longa, 3–4.5 cm lata. Racemi terminales (?) graciles valde elongati albido-pubescentes 25–40 cm longi, densiflori, bracteae reflexae ovatae, acutae v. acuminatae 2 mm longae. Pedicelli graciles 7–8 mm longi, tomentosi. Sep. postic. elliptico-oblongum, obtusum 5 mm longum. sep. lat. oblique ovata obtusa 5 mm lga 4 mm lta. reflexa. Pet. lineari-oblonga. obtusa 4 mm lga. Lab. 3-lob. orbiculare 5 mm lgum & latum. lobi lateral

lati, subobtusi, lobus intermedius parvus quadratus, obtuse bilobus, interdum denticulatus. Discus 3-carinatus, carinis lateralib. oblongis glabris, carina media farinacea, apice in cristam orbicularem expansa. Col. brevissima, alis breviss. ~~trun~~ truncatis. — Borneo. Linden importav.

Bulletin de l'Academ. Imp. d. Sciences St. Petersbourg
Tome XXXI (1887) 102 & f.
Liparis japonica Maxim. l.c. 102.

Spithamea v. ultrapedalis, robusta, pseudobulbus ovatus, vaginae 2-3 obtusae, virescentes. Folia 2 elliptica oblonga v. rotundato-ellipt. obtusa in petiolum latissimum breve v. rarius laminam aequante sensim v. subito attenuata. Scapus alato-anceps folia 2plo v. plus superans. Racemus laxus pluriflorus, bract. parvae pedicello ovarium aequante multiplo breviores. Flores virescentes erectopatuli, perigonii phylla membranacea obtusa, exteriora ovatooblonga 3-nervia, interiora spathulato-linearia 1-nervia, subaequilonga

New or Noteworthy Plants.

PHALÆNOPSIS FUGAX, *n. sp.**

* *Phalænopsis fugax*, n. sp.—Foliis cuneato-oblongis viridibus unicoloribus 4–5 poll. longis, ad 1 poll. latis; racemo sublongiore cataphyllis 1 v. 2 vestito, supra clavato paucifloro; bracteis minutissimis triangulis acutis quam ovaria pedicellata multoties brevioribus; sepalo dorsali petalisque ovato-linearibus acuminatissimis, sepalis lateralibus ter latioribus ovatis acuminatis; labelli bene brevioris unguelineari, lobis lateralibus erectis lineari-oblongis antice rotundato-retusis, lobo intermedio in basi v. isthmo, callo conico obtuso instructo, ipso globuloso antice sulcato intus vacuo nudo; gynostemio brevi, anthera antice longe producta; polliniis et fovea stigmatica pro gynostemii magnitudine maximis, rostello lineari. Totus flos vix pollicem diametro, albida v. straminea; labelli lobi laterales violaceo-striati. Flores fugaces vix 5 v. 6 horas durantes. *F. Kränzlin.*

A very curious Phalænopsis, the closer affinities of which are at present very little known. The whitish or pale yellow flowers open about 9 o'clock in the forenoon, and begin to fade at 2 or 3 o'clock of the same day. This striking fact (for a Phalænopsis) was observed in two following years by Mr. White, Orchid grower to Sir Trevor Lawrence, Burford Lodge, to whom I am indebted for fresh materials. The most striking part of the flower is the middle lobe of the lip, which is contracted to a globular hollow body, furrowed at the top, and with an obtuse pointed cone before; the lateral lobes are linear, erect, and in the way to be shown very often in other Phalænopsis species. It is by no means a beauty in the genus, but interesting for a new type of the labellum. *F. Kränzlin, Berlin.*

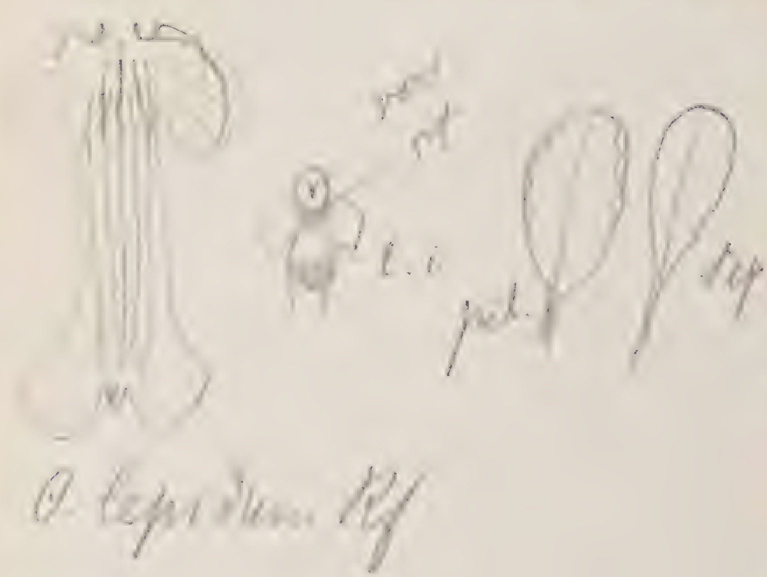
From the "Gardeners' Chronicle," Sept. 23, 1893, p. 360.

lati, subobtusi, lobus intermedius parvus qua-
dratu [illegible] r.
divisu [illegible] ngis
glabr [illegible] ostā
oblon [illegible] nervib.
~~[illegible]~~ [illegible] ttav.

Bull [illegible] bourg
Tom [illegible]
Lip [illegible]

Spith [illegible] lobus
ovatu [illegible] ellipti-
ca ob [illegible] ū la-
tissim [illegible] d.
subito [illegible] 2plo
v. plu [illegible] sect.
parv [illegible] brevi-
ores [illegible] phylla
mem [illegible] a 3-ner-
via, interiora spathulato-linearia 1-nervia, subaequilonga

Labell. paulo brevius vix e-arrius obovato-subquadra-
gulus, basi subcordatum, gynostem. amplectens exappen-
diculatum a medio reflexum, 5-nervium, antice crenatum c.
dente majore in medio. Gynost. leviter arcuata basi
latius; rostell. truncatum in dente depresso-triangulat.
acutum stigma … gynostem.
decurrente ab … dentatum
anthera depre… pollinia
flava per 2 … libera.
Microstylis … Franch. Sav.
Enum. II, 21; … Kew journ.
XVIII. 70 verso



O. lepidum Rf

Ex tota Jap… a, in Mand-
shuria austr… angustis
bureicis (Ra… tl Wai-Fu
din, insula … (Maxim)

Bulbophyllum … : 182
[§.1 Lindl. Orch. 48]. Rhizoma elongatum repens fili-
forme. Pseudobulbi remotiusculi, oblongi, 1-phylli. Folium

lati, subobtusi, lobus intermedius parvus qua-
drat… …ur.
dirco… …longis
glab… …vista
obli… …brevib.
~~tra~~… …rostas.

Amphilophium Jelskii
Wienerhum 1902

Bu… …bourg
Tor…
Li…
Spec… …ber
ovat… …ellipt.
ca a… …ta la
tirri… …e.
subc… …2plo
v. pl… …6 sect.
parv… …brev.
oct. … …phylla
mem… …ga di-re
sia, interiora spathulato-linearia 1-nervia, subaequilonga

Labell. paulo brevius vix crassius obovato sub quadrangulus, basi subcordatum, gynostem. amplectens exappendiculatum a medio reflexum, 5-nervium, antice crenatum c. dente majore in medio. Gynost. leviter arcuatum basi latius, rostell. truncatum in dentem depresso-triangulatum acutum stigma marginantem & ad dimidium gynostem. decurrente abiens, clinandrium utrinque 1-dentatum anthera depresso-hemisphaerica 2 locularis, pollinia flava per 2 in massas ovatas convexa, libera.

Microstylis japonica Miq. Prolus. 135; Franch. Sav. Enum. II. 21; Seitaka hutzumushi. So môku zusetz XVIII. 70 verso fig. B.

Ex tota Japonia silvis auctorum non rara, in Mandshuria austroliore, ad Amur australem in angustiis bureicis (Radde!) jugo Sikota ad fontes fl. Wai-Fudin, insula Russki ex adverso Wladiwostok (Maxim)

Bulbophyllum inconspicuum Max. l. c. 182 [ß1 Lindl. Orch. 48]. Rhizoma elongatum repens filiforme. Pseudobulbi semiorbiculari, oblongi, 1-phylli. Folium

brevipetiolatum, lamina oblonga obtusa, basi attenuata coriacea margine revoluta, 3-nervia. Pedunculus radicalis altitudine pseudobulbi, 1-florus, 3 bracteatus, bracteae lanceolatae membranaceae acuminato oblongae, summae 2 inter se florique approximatae. Flos parvus e sicco decolor. Sep. summum subtus nervo petalaque minore subbinervia ovatodeltoidea, acuta, margine fimbriata. Petala hyalina sepala membranacea, lateralia majora oblonga elliptica, obtusiuscula, 3-nervia, integra. Labellum petala aequans, ovatum, acuminatum, incurvum, inter cristis validissima percursum. Gynost. apice utrinque acute 1-dentatum, anthera minuta, stigma amplum subquadratum, per gynostemii elongatum attenuatum, incurvum e labello articulatum.

Orchidea dubia! Ded. Siebold. Miq. Cat. herb. Lugd. Bat. 1[illegible].
Japonia (Siebold in herb. Lugd. Bat. sub nomine jap. Mugiran. — Kiusiu monte Naga, in arborib. cum [illegible] — Accedere videtur ad B. pygmaeum Ldl. ex Nova Zelandia, nimis tamen diversum.

Eria japonica Max. v. Manuscr. y Monograph.

Anoectochilus Tashiroi Max. l.c. 103.

[Odontochilus Bl.] Caulis foliatus. Fol. viridia brevi-petiolata, ovata, acuminata. Racemus laxus, pauciflorus, c. bracteis ovarios eas superantib. calyceque dorso articulatopilosa. Petala lineari-lanceolata falcata. Sep. dorsale rhombeoovatum triente superantia & cum eo in galea conglutinata. Sep. lateralia divaricata elongato-dolabriformia basi cornuata. Labelli saccus brevissimus intus utring. c. appendice 2-3-partita, unguis longitudine laminae bipartitae (partitiones oblique ovatae acutiusculae extus irregulariter denticulatae) linearis secus medianam bilamellatus, margine longe fimbriatus, fimbriae utrinque 8-9 subulatae laminae latitudine, breviorbus versus ejus basin decrescentib. rostellum acute 2partitum patens.

Liukiu (Tashiro mis. Tanaka)

Habitus Cystopodis elongati Bl. Orch. Arch. Ind. t. 30 a quo differt forma sepalorum ciliatorum, petalisq. sepalo dorsali

non aequilongis praesertim dentibus deltoideis inter partitiones labelli, cristis in ungue labelli 2.

Spithameus, petiolus 6 mm, lamina folii maximi 5:3 cm, racemus 6 cm. Perigon. ex sicco rubentiviolaceum c. maculis parvis obsoletis, phyllis 1-nerviis, dorsali 5 mm lateralib. connat. 15 mm, petal. 6 mm, labello albo 16 mm longo

<u>Orchis Roborowskii</u> Max. l. c. 104.

Rhizoma horizontale breve stolonibus innovans. Caulis palmaris diphyllus. Folia elliptico lanceolata obtusa c. apiculo, spica 2-3-flora, bracteae flores superantes. flores rosei, Sepala later. reflexa, superius petalaq. superantia, omnia ovato-oblonga, obtusa, 4-5 nervia. Labellum basi bicristatum, orbiculatum, antice breviter 3lobum, lobis ovatis, obtusiusculis, medius productior, calcar conicum labellum superans; ovarium subaequans.

Tangut (Przewalski 1880)

Proxima est <u>O. Chusua</u> Hk.f. sic diagnoscenda cf. Hook. f. in Fl. Brit. Ind. VI & King Pantl. Folgt hier eine nicht copierte Diagn. <u>Das</u> Zitat lautet also <u>O. Chusua Hf. Maxim. l. c. 104.</u>

Orchis cyclochila Max. l. c. 104.

Rhizoma e fibris elongatis villosis tenue carnosis. Folium basale orbiculatum v. orbiculato-ellipticum obtusissimum in petiolum cuneatum attenuatum. Scapus palmaris, spica 2-3-flora, bracteae flores roseos subsuperantes, sepala petala 3-nervia oblonga acutiuscula. Petala linearia 1-nervia superantia. Labell. obovato-rotundatum, crenatum, indivisum, calcar anguste conicum & ovarium superans.

Habenaria cyclochila Franch. & Sav. Enum. II. 516.

Gymnadenia spec. Miq. Prolus. 139. & Cat. herb. Lugd. Bat. 102. — Hanomero. Sô môku XVIII. 46.

Japonia: Fuji yama (Tschonoski, Yatabe sub nom. jap. Ichiyô-ran); vallibus profundis Kiso-yama (Tsuruma)

Herminium alaschanicum Max. l. c. 105.

Caulis foliatus. Folia acuminata, infimum oblongum, reliqua linearia, summa subulata, bracteiformia, spica secunda densa, bracteae lanceolatae subulatae ovarium superantes, ovarium apice brevirostre inflexum, erectum, flores virentes, nutantes. Sepal. dorsale ovatum subtrinerve, Petala

lanceolata 1 nervia, omnia obtusiuscula. Pet. triente longiora, apice carnosula pl. m. (umständlich) trilobis, lobo medio lineari productiss, superiore dentiformi v. obsoleto, inferiore lineari v. anguliformi deltoideo. Labellum cuneatum, basi concavum, ad medium trilobum lobis parallelis lineari-lanceolatis, medius sub brevior, calcar scrotiforme distinctum.

Tangut. In rupibus alt. 10000' s. m. rara. — Mongolia australis. Jugo Alaschan ad latera argillosa aperta, parce (Przewalski 1873. 1880)

Affine H. Monorchi sed flores majores, calcar distinctius, labellum pet. q. saepe triloba lobis parallelis. Adsunt varietates 2, alaschanica pedalis, petalis angulatis et calcari longiore et tangutica spithamea, petalis manifeste 3lobis.

Tuber (tantum in tangutica collect.) 1 globoso-ovale. Caulis basi vagina 1 hyalina tum foliis approximat. 2-5 instructus. Imum oblongum breve acuminatum 4:1 cm, reliqua complicata sensim acuminata 70:6 ad 35:5 mm magna, summa 2-4 sparsa. Spica 2-8 cm, sep. 4.5 mm, pet. et lab. 5.5

Gynost. nana basi labelli adnata, antherae loculi paralleli basi parum divergentes, polliniorum caudiculae brevissimae, glandula ovalis magna, rostello planum depresse deltoideum margine tantum libero opposita.

Herminium biporosum Max. l. c. 106.
Folium radicale, oblongum, obtusum, 3-nerve, cauli conlinum, basi vaginans. Scapus medio apice laxe racemosus. bracteae minutae, obtuse deltoideae pedicello breviplus 2plo breviores. Flores virides, phylla obtusa, obsolete 1-nervia. sep. dorsale brevius late ovatum e petalis oblique anguste ovatis aequilongis galeam formans, lateralia ovatoelliptica subobliqua labellum vix longius patentia, hoc a latiore basi lineari oblongum, basi secus nervum utrinque poro rotundo magno instructum, ovarium obovoideum pedicellum duplo floremque fere totidem superans.
Tangut. In viciniis lacus Kuku-nor (Przewalski) 1880.
Species proxima H. gramineum Lindl. cf. Hook. Fl. Brit. Ind. VI et Ring Pauthling. In orbem H. gramineum Lindl. Max. l. c. 106

Exemplū quod praesto 5-pollicare. Tuberi singuli vesti-
giū parvū carnosū. Vaginae laceratae 3 ad basin caulis.
Lamina folii 30:7 mm. Racem. 1½ pollic. Flor 6 c. ap-
calib. 2 abortivis internodia aequantes, 5 mm diam.
Ovariū 2,5-3 mm. Stigma amplū, rotundatū, convexū.

Platanthera interrupta Max. l. c. 106.

Tubera crasse linearia, elongata, divergentia. Caulis
ad bipedalis alatoangulatus plurifoliatus. Folia basi
~~tota~~ breve attenuata sublabulosovaginantia, infer-
iora elliptica oblongave acuta, sequentia paulatim
oblongolinearia acuminata, suma bracteiformia. Race-
mus elongatus, rariflorus bracteae inferiores longi-
tudine florū, flores virides odori, perigonii phylla
Juentia obtusa membranacea, Sepala majora, dor-
sale rotundato-ovatum brevius, lateralia oblique
attenuata ovata. Petala vix crassiora sepala latera-
lia aemulantes. Labellum haud longius ovatooblon-
gū, obtusū, basi oblassissime auriculatū, calcar tenue
acutū, ovariū superans, antherae emarginatae loculi divergentes

rotellā depressā obtusā.

Hiama. Nagasaki (Maxim. Oldham N. 842 a Miquel Hab. japonica dicta. Prov. Omura prope Sonogi. Prov. Hizen monte Higosan (Maxim.) –

Ab affini Plat. mandarinorum Rchb. f. (= Hab. Keiskei Miq. Pr. l. 139, Plat. Keiskei Franch. Savat. II 31 Plat. orea des β. macroceutron Fr. Sav. Enum. II, 514) satis distincta foliis, racemo laxo et labello brevi.

Platanthera ussuriensis Max. l. c. 187.

Radix e fibris tenuib. cylindraceis horizontaliter divaricatis. Caulis gracilis 1-2-pedal. supra basin diphyllus. Fol. infimū obovatooblongū, obtusā, superius oblongolanceolatū breve acuminatū, utrique basi attenuatū et in vaginas tubulosas abiens. Folia sequentia bracteiformia, linearia, acuminata. Spica digitalis laxa, multiflora, bracteae acuminatae, lineares, ovaria aequantes. Flores virides parvi. Sep. membranacea 3-nervia, dorsale rotundatū, lateralia paulo longiora, ovatooblonga; Petal. 1-nervia, carnosa, oblonga subsuperantia

Labell. crassū patens, papillosū sepalis paulo longius ovatū & basi utrinq. in lobulū depresse deltoideū dila- tatū, apice obtusū. Calcar recte incurvū ovario brevius. antherae truncatae loculi discreti paralleli basi vix attenuati, rostell. deltoideū liberū, processub. lateralib. incurvis quadratis profunde sulcatis glandula oblonga caudiculae longiusculae recipientib.

Pl. tipuloides var. β. ussuriensis Reg. Fl. Ussur. n. 477 t. X fig 7-9 (pessimum) Franch. Sav. Enum. II, 32.

Mandshuria. ad fluv. Ussuri (Maack!) Japonia Tanakka sub nomine Oba tombosô in Kiusiu. Ad pedē vulcani Wunzen in fruticetis paludosis. Nippon. Jugo Hakone (Max. Savat.) Yokohama parce (Maxim.) Alpe Nikko (Yatabe) Prov. Nambu (Tschonoski) Yezo. Silvis graminos. circa Hakodate & Siginope versus ad Todohiki (Maxim.). - Hac forsan Tonbo sô, l. Sôzo. mokou XVIII t. 14 de qua dicitur flores inodoros viridesc habere & ad pedē montiū crescere, sed flores nimis ang. delineati sunt. Similis Pl. flavae A. Gray sed [illegible] distat foliis saepe 3, omnib. acuminat. labello [illegible]

leviter obtuse auriculato apice vernis rotundato vel dilatato etc. etc. Sed radix, florum magnitudo spica etc. eadem.

Nota. Ad Plat. decipientem Ldl. pertinet. Gymnad. Vidalii Fr. Savat. Enum. II. 29, 512 Ohime toridori sō in Sō moku XVIII t. 52. Lindley non sine causa de genere dubitavit, caudicula enim omnino deest et etiam in alabastro, ita ut segmenta angulata polliniorum libera in loculo contineantur, quod iterum iterumque in individuis numerosis speciei per Japoniam borealem frequenter et valde luxuriantis perscrutatis observavi. Valde tamen incertus maneo an ob solam caudiculae defectum planta haec dignitatis genericae digna declaranda sit.

Ad Pl. ophrydeam F. Schmidt Fl. Sachal. n. 432 Pl. Reinii Franch. Sav. II 32, 513.

Pl. hologlottidi Maxim adde syn. Habenaria neuropetala Miq. Prolus. 138.

Journal of Botany XXXVI (1898) Ridley.

Oberonia aurantiaca Ridl. l.c. 210.

Acaulis, folia pauca (-6) falcata, acuminata, carnosa, atroviridia, 2 poll. longa, 1/8 poll. lata v. minor. Spica 4 poll. lga, nutans, basi bracteis lanceolat. acuminat. tecta. Bract. virides anguste lineares, acuminatae. Flores minimi verticillati. Sepala ovata, aurantiaca, patentia. Petala oblonga, obtusa, apicib. denticulat. multo angustiora. Lab. angustũ, oblongũ, rufũ, lobis lateralib. mediocrib. oblongis obtus. quã lobus intermedius multo brevioribus lobo medio angusto oblongo apice bifido. Col. pro genere alta, rufa, stelidia 0. Anthera alba. — Selangor. Kajang (Goodenough)

Allied to O. rufilabris Ldl. a Burmese plant from which the short lateral lobes of the lip & the spreading terminal lobes with no intermediate ones distinguish it. It is also a more fleshy & stouter plant.

Liparis (Mollifoliae) pectinifera Ridl. l.c. 210.
Terrestris pseudobulbis vetustis cylindricis 4 1/2 poll. longis, 1/2 poll. crass. purpureis. Fol. majora tenuia inaequalia 5 undulata, laete viridia, inferiora ovata, superiora lanceolata v. ovato-lanceol. acuta, nervis validis elevatis, 6 poll. lga, 3 poll. lata v. minora. Scapus valid. tricarinatus basi nudus. Flores mediocres distichi; bract. ovatae, acutae undulatae superiores lanceolatae, 1/8 poll. lgae. pedicelli c. ovario 1/2 poll. lgi. graciles. Sep. linearia obtusa, revoluta (viv.) laete viridia, 3/8 poll. lga. Pet. anguste linearia, breviora. Lab. oblong. apice late quadratum, bilobum, dentatum, linea mediana incrassata, callis nudis, (nullis?) viride lineis 2 in disco purpureis. Col. gracilis curva, alata, viridis. Anthera ovata, polliniis aurantiacis.

Southern Perak. Dindings. In woods to the hill Gunong Tungul. — Habitus von Microst. congesta Ldl. The pectinate lip & complete absence of calli; represented only by a thickening at the base of the lip make it very different from any of our native sp. but it is more closely to L. pectinata Ridl. from the Philippines. That species is however much smaller & has a pair of calli at the base of the lip.

Dendrobium repens Rf. This has now been found in Perak & confirms my opinion, that D. Scortechinii Hook. f. is identical with D. repens. (Ridl. l.c. 211.)
Dendrob. aureum var. philippinense? has also been sent me by from the Taiping hills, Perak. This well-known plant which appears to be very rare in the peninsula, might well have been expected to occur, as it is found in India, Java & the Philippines.
D. modestum Ridl. l. c. 211 s. Monographie.

Bulbophyllum flammuliferum Ridl. l. c. 211
Rhizoma crassum, longum, 1/8 poll. diam. Pseudobulbi distantes oblongo-lanceolati, complanati, saepe curvi, 2 poll. lgi. 1/2 poll lti. 1/3 poll. crassi olivacei. Folium oblong. lanceolatum, coriaceum, obtusum, basi angustatum, 8 poll. lg. 1 poll. latum. Scapus prope basin pseudobulbi exoritur 6 poll. lgus. basi vaginis tenuib. ventricos. viridib. tectus. Flores circ. 25 pro ratione magni. bract. quam pedicelli longiores. 1/4 poll. longae, lanceolatae tenues, pallide virides, pedicell. tenuib. Sep. lanceolata

acuminata, flavescentia, apicib. aurantiaco-coccinea. Pet. minima, oblonga, obtusa, flavescenti-albida. Lab. breve carnosū, linguiforme, obtusū, minute puberulatū, flavescens apice coccineum. Col. brevis, stelidiis bifid. lobo postico erecto lanceolato, antico breviore rotundato obtuso, per columnae productus. Decembri Januario. Selangor in rupib. calcareis ~~Gua Batu~~ (near Kwala Lumpur) 1000 ft.

Allied to D. aporum Hf. but has much larger pseudobulbs & flowers than those of any of that section. The form & colouring the flowers resemble those of D. capitatum Ldl. & D. coccineum Hf. but are very much larger.

D. macranthum Ldl. On trees on the Mandau River, Siak, Sumatra.

Cirrhopetalum ochraceum Ridl. l.c. 212.

Pseudobulbi conici 4-anguli: 1½ poll. longi: ½ poll. crassi; Fol. subpetiolatū, lanceolatū, coriaceū, obtusū, basi carinato pallide viride, 7 poll. lgū. 1 poll. latū. Scapus gracilis ruber, 10 pollicar. vaginis 1-2 albescentib. Flores 10 mediocres, bracteae lanceolatae acuminatissimae, 1-nerv, nervo rubro. Sep. dorsale

ovatū, acuminatū, recurvū, 3-nervū, margine capill. long. rubr. munitū, lateralia omnino connata oblongo-lanceolata, obtusa, ochracea, dense rubro-punctata. Pet. lanceolata rubra, capillis rubr. marginata. Lab. linguiforme, olivaceum, canaliculatū. – August.

Selangor, on the Pahang track, on trees.

Allied to C. Mackoyanum Hf. but a larger plant, with much broader lateral sepals. The apex of the entirely united sepals is inaequilateral. They are 1 inch lg & 1/4 inch wide. The colour is rather dull, the upper sepal & petals reddish, the lateral connate pair orange-ochre coloured with numerous red dots.

Cirrh. Curtisii Hook. f. Bot. Mag t. 5774 was collected by Mr. Curtis at Pungah in Siam, not in Malacca as suggested in the Botanical Mag.

Eria cymbidifolia Ridl. l.c. 212.
" pusilla Ridl. l.c. 213. } cf. Monographie
" hispidissima Ridl. l.c. 213

Cladenia viridiflora Hook.f. I met with this plant in the woods of the Bongaya River, in Labuk bay, North East Borneo. This is the most eastern locality for this plant yet known — Ridl. l.c. 214.

Calanthe Ceciliae Rf. — Ridl. l.c. 214. — Abundant at the foot of limestone rocks at Gua Batu, Selangor. The colour varies from the purest white to violet. At Indragiri in Sumatra exactly similar but of a darker violet.

Cal. vestita Lindl. Ridl. l.c. 214. A single plant on the top of the limestone rocks at Gua Batu, Selangor. In flower in December. The species well known from Tenasserim & Borneo has not hitherto been found in the Malay Peninsula.

Bromheadia aporoides Rchb.f. l.c. 214 Mandau River near Siak. Sumatra. Not previously recorded for this isld.

Eulophia squalida Lindl. l.c. 214. — Not uncommon near Sandakan Brit. North Borneo.

Saccolabium Angraecum Ridl. l.c. 214. — Caulis pollicar. Fol. lanceolata falcata, obtusa, obliqua, coriacea, 2 poll. lga, 7/8 poll lta, Racemus brevis 3/4 poll. longas,

rhachi incrassata, complanata; bracteae oppositae ovatae, acutae, brevissimae, circit. 16. Flores singulatim ex-pansi albi; pedicelli 1/4 poll. longi. Sep. elliptica, acuta, mucronulata, 1/4 poll. lga. Pet. angustiora basi angustata. Lab. ad basin columnae adnatū ungue brevi, lobis lateralib. oblique obovat. inaequilateralib. minute denticulat. lobo medio minimo cordato, calcar pendulū, clavatū, fere 1/2 poll. longū. Col. brevis, lata, apoda. Anthera depressa lata, paull. clavata. Pollinia 2 ovoideo-globosa, pedicellus tenuis (sic!) dimidio (sic!) panniculaeformis. Sdt jedenfalls caudicula & glandula tenuis. Stigma latū, transversim ellipticū. Rostell. elongat. acuminat. capsula 3quetra 1 1/2 poll. longa.

Selangor. On trees at the limestone rocks near Kwala Lumpur.

Little plant, with the habit of Dendrocolla but with flowers at first sight resembling those of some Angraecum. The lip has 2 large spreading lateral lobes between which is a small ovate inconspicuous terminal lobe. The spur is long, narrow & club shaped. Aus Verlegenheit[illegible]

Saccolabium secundiflorum Ridl. l. c. 215.

Caulis pollicar. Fol. lorata inaequaliter biloba, obtusa, coriacea, atroviridia, adb. Racem. 2 pollicar. gracilis. Flor. 6 secundi parvi. Sep. postic. lanceolatum, acuta, album, lateral. lanceolata obtusa. Pet. linearia oblonga, alba apicib. violaceis. Lab. basi saccatum, lob. lateralib. oblong. acut. alb. flavescentib., lobus intermedius basi angustatus, apice dilatato obtuso, calcar pedicello aequale arcuatum, obtusum, callus minimus in ore. Col. brevis, viridis, stelidiis linearib. ... Anthera rotundata, rostello lineari lato bifido longe venuosa. Pollin. 2 globosa, caudicula (pedicello Ridl.) lato-linearis disco (Pollenheimer glandula) majore oblongo canaliculato.

Singapore at Chua Chu Kang. August.

Small plant with dull inconspicuous flowers in a secund raceme. The lip possesses 2 side lobes between which is a saccate portion leading to the curved rather thick spur which has a small callus in the mouth, The midlobe is narrow at the base with a thick apex. the sides of which are turned up & papillose

Saccolabium carinatum Ridl. l.c. 215.

Caulis brevis, 1/4–1/2 poll. longus. Fol. 4–7, oblongo-lanceolata, obliqua, basi angustata, 2 poll. lga, 5/8 poll. lta aut minora, carinata, obtusa. Racemi graciles 4 pollices multiflori. Flores parvi dissiti brevissime pedicellati; bracteae parvae, lanceolatae, acuminatae, 1/16 poll. longi. Sep. angusta lanceolata, acuminata, rubra. Pet. latiora obtusa. Lab. saccatū, integrū, apice acuminatū, flavū. Col. brevissima. Anth. cordata rostrata, filamentū latū. Pollin. aequala, rostellū grande, bidentatū lobis semiovalis acuminatis, cap. elliptica.

Selangor. High up the limestone rock near Kuala Lumpur – Rare.

Flowers very small, red & yellow. The lip is in the form of a sac ending in a point resembling that of some Thrixspermū, it is curved up so as to cover the column. The 2 lobes into which ~~of~~ the rostellū is split form an ovate acuminate body, it is very large in proportion to the column & nearly closes the mouth of the coal scuttle-shaped lip. Verwandtschaft sehr schwierig festzustellen.

Dendrocolla carnosa Ridl. l.c. 216.

Caulis bipollicar. radicib. copios. Folia plura approximata, anguste lineari-lanceolata, acuminata, acuta, rama, carnosa, supeme canaliculata, purpureo viridi-atroviridia, 3 poll. longa, 1/4 poll. lata, vaginis 1/4 poll. longa, costata, purpurea. Racemi plures pedunculis gracilib. purpureis 2 pollicarib. paulo incrassati, pollicares (ancalar.) bracteae quaedam breves ovatae, acutae. Flores parvi pedicell. gracilib. 1/4 pollicis longis. Sep. oblonga ovata flava. Pet. subsimilia. Lab. quam petala brevius, lobis lateralib. longis et latis; disco medio sacciato, lobo medio carnoso obtuso, pulvino (sic! will well mean pulvinari) tomentoso ad basin. — Septemb.

? Penang (Curtis)

Allied to Dend. pardalis Ridl. with shorter peduncles & differently coloured flowers. The lip is rather peculiar in having the erect later. lobes meeting in the middle line so as to cover over a saccate nectary formed by the disc. The fleshy tongue-shaped apex bears a small woolly papilla at its base.

Zeuxine clandestina Bl. Ridl. l.c. 216.
This inconspicuous plant was obtained by Waitz in Eastern Java & since then does not appear to have been collected again till last year, when it appeared in the jungle of the Bot. Gard. at Singapore.
Cystorchis variegata var. purpurea Ridl. l.c. 216.
Brought by a native on the Bongaya river, Labuk bay, Brit. North Borneo. It had previously been recorded from Western Java, Sumatra & Pahang.
Lecanorchis malaccensis Ridl. l.c. 216
I found fruiting plants of what appeared identical with the Malay Peninsula plant in the forest of Bongaya. It has not previously been recorded from Borneo.
Pogonia discolor Bl. Ridl. l.c. 216.
Has been found by Mr. Goodenough in Selangor. The plant has been only previously recorded from Siam (where it is known as the Elephant's Ear) & from Java.

Royal Asiatic Society, Straits Branch N. 33 (Jan. 1900)

Calanthe Shelfordii Ridl. l.c. 23.

Leaves 9. petiole 3 inch. long, tapering into the lanceolate, acuminate blade 1 foot long, 2 inch. across 5-nerved, herbaceous, plicate. Racem 8 inch. long, slender. Flowers numerous, flesh coloured, nearly 1 inch across. Pedicels slender 1/2 - 3/4 inch long. Sepals oblong, lanceolate, acute, upper one broadest. Petals broadly spathulate, acute. Lip 3-lobed, much shorter, 1/4 inch long, lateral lobes short rounded, median elongate, linear-oblong, apex dilated rounded, then acute; spur 1/2 inch long, pendulous dilated & hooked at the apex, calli on the lip 2 small wartlike processes. Clinandrium deep edges thin, elevated, undulate rostellum long acuminate.

Sarawak. Penrissen. At 4800 f. near summit. Flowers flesh colour. Perhaps as near C. curculigoides as any species, but with a more slender raceme & a very different lip.

N.B. Die andere l.c. beschriebene Pfl. ist Eria megalopha Ridl. Kränzlin Monographie.

30-

Eine neue *Calanthe (C. Hosseusiana)* aus Siam.

Von Fr. Kränzlin-Berlin.

Calanthe Hosseusiana Kränzl., nov. spec.

Pseudobulbi articulati, elongato-conici, transsectione obscure 8-goni (si mavis tetragoni facie quaque medio costata), internodia 2—3 cm longa, infima 2 cm crassa. Folia longe petiolata, lanceolata, acuta, plicata, circ. 15—20 cm longa. Scapus folia excedens, paucivaginatus, gracilis, per totam longitudinem longe et satis dense pilosus, 25—30 cm altus; racemus pauciflorus, laxiflorus; bracteae ovatae, acuminatae, extus longe pilosae, intus glabrae, 1—1,5 cm longae, ovaria tenuia longe non aequantes. Sepala late ovata acuta v. acuminata, extus longe pilosa, intus glabra. Petala aequilonga, oblonga, angustiora, acuta in utraque facie glabra. Labelli lobi laterales magni, erecti, obtrianguli flabellative supra subrotundati, lobus intermedius minor rotundatus; discus carnosus, valde convexus, glaberrimus; calcar tenue, filiforme, apice ipso obtusum longe-pilosum. Gynostemium breve antice et postice brevi-pilosum, rostellum latum, bilobum. — Flores inter minores generis, sepala petalaque flavido-rubra 1—1,1 cm longa, lateralia basi 5—6 mm lata, dorsale vix 5 mm, petala aequilonga vix 3 mm lata, haec omnia plus minus revoluta; labelli lobi laterales 5 mm longi et lati, intermedius 4 mm longus et latus, totum labellum album, pulchre sanguineo-maculatum, calcar 2,2 cm longum albidum.

Floret in Europa Januario.

Siam: Doi Sûtäp am Wasserfall, Ostseite (Hosseus!) — Blühte bei dem Reichsfreiherrn M. von Fuerstenberg in Hugenpoet b. Düsseldorf.

Die Pflanze erinnert an ein Miniaturexemplar von *Cal. vestita* und ist augenscheinlich nahe verwandt mit *Cal. cardioglossa* Schltr., aber noch kleiner als jene Art; ich hatte zwei Exemplare zur Verfügung und beide zeigten fast dieselben Verhältnisse, so dass ich nicht recht an verkümmerte Exemplare glaube. Auffallend ist die Behaarung; welche sich auch auf den Sporn erstreckt, welcher nach Herrn Schlechter bei seiner *Cal. cardiochila* unbehaart ist, was er ausdrücklich bemerkt. Ferner ist das Labellum völlig verschieden, bei *Cal. cardiochila* hat es sehr kleine auf Ährchen reduzierte Seitenzipfel, hier sehr grosse, während der Mittellappen kleiner ist. Die Behaarung beginnt bei dieser Art am unteren Ende des Schaftes und erstreckt sich bis auf die Spitzen der Sepalen, eine überall gleichmässig verteilte Bekleidung ziemlich dicht gestellter langer senkrecht abstehender Haare. Im Inneren der Blüte ist nur die Säule behaart, aber nicht wie bei *Cal. cardiochila* auf beiden Seiten der Basis, sondern auf der Vorder- und Rückseite, auf letzterer bis zum Beginn der Anthere. Verschieden ist auch die Blütenfarbe; bei *Cal. cardiochila* rosenrot, hier gelblich mit schwach rötlichem Anflug und das Labellum weiss mit blutroten Fleckchen. — Die Blätter habe ich nicht genau beschreiben können, nach einer in sehr kleinem Massstab hergestellten Photographie haben sie eine ungefähre Länge von 25—30 cm, über die Breite vermag ich nichts mitzuteilen. — Dem Gesamteindruck nach müssen beide Arten einander sehr ähnlich sein.

Oncidium Imperatoris Maximiliani Rchb. f. in Wawra Reise Kais. Maxim. I 154 t. 24.

Affine Oncid. crispo Lodd. Callo in labelli basi depresso utrinque obtuse triangulo ante angulos constricto trifido, laciniis lateralibus divaricatis obtusangulis lobulatis, lacinia media ancipite utrinque basi antrorsum cornuta, papula quadrata utrinque juxta basin labelli calli; callis lateralibus styliformibus quibusdam seriem efficientibus, columnae alis rotundatis minutissime denticulatis.

Simil. Onc. crispo Lodd. b. superbo Rchb. f. sed systemate callorum longe recedit nec adsunt ullae papulae depressae circumstantes quae in omnibus reperiuntur Onc. crispi varietatibus.

Petropolis. Auf hohen Bäumen vereinzelt. Wawra & Maly Coll. N. 417.

 32.

Pogonia lenheirensis Barb. Rodr. in Contrib. Jard. Bot. Rio de Janeiro I (1901) 47. tab. VI fig. 1-8. — Caule robustiusculo, elongato, erecto, tereti, flexuoso, glauco-viridi, fistuloso 50-60 cm lgo. ad apicem 5-foliato. Foliis erecto-concavis ovato-lanceolat. acutis, amplexicaulib., breviter decurrentib. glauco-viridib. Florib. magn. axillarib. solitariis, ovario cylindraceo, erecto, 6-sulcato. Sep. aequilong., lin-lanceolat. acuminat., dorso subcarinat. intus subconcav. erecto-patul. 6.5 cm long. - 1,0 cm lat. Pet. sepalis aequilong. latioribus longe lanceolat. acuminat. ad apicē recurv. marginib. subundulat. subconcav. longitudinaliter reticulat. 6.5 cm lgis. 1.7 cm lat. Labello petalis ~~multo~~ paulo minore, latiore, longe oblongo convoluto, integerrimo, ad apicē margine crispato, apiculato, subrecurvo, basi bicalloso, carina mediana elevata, profunde sulcata, carnosa, albo-lutea, inferne dilatata cū lineis elevat. ad apicē convergentib., superne roseo-purpureo 6.2 cm lg. 2.4 cm lto. Col. alba, suberecta, dorso convexa, utrinq. membranacea, subclaviformi. clinandrii marginib. utrinq. dentato-serrulat. — Prov. Minas Geraes. Serra do Lenheiro b. S. João d'El Rey — Fl. Aprili. — Aff. P. rosea & Miersii.

<u>Stenorhynchus Canterae</u> Barb. Rodr. in Contr. Jard. Bot. Rio de Janeiro I (1901) 48 ~~fig.~~ t. VI fig. C. 1-7. — Caule elongato, gracili, aphyllo, superne densiuscule brevi-piloso, vaginis acuminat. subimbricat. vestito. Racemo longiusculo, denso, multifloro, bract. lanceolat. acuminat. imbricat. flor. aequilong., ovario brevissime pedicellato, oblongo, breviss. puberulo. Sep. acut. extus puberul. dorsali lanceolato, fornicato, lateral. majorib. oblong. subfalcat. subconcav. in calcar sacciforme excurrentib. Pet. oblong. ad basin attenuat. sepalo dorsali aequilong. Lab. erecto, apice recurvo, leviter trilobo, basi tenui-unguiculato, leviter sagittato, supra medium late constricto, call. carnos. pubescentib. in basi adnat. lobo terminali oblongo, obtuso, argute granuloso. Col. glaberrima, inferne paulo constricta, rostello elongato, acutissimo. — Tuberidia fasciculata, flexuosa, obtusa, carnosa, pilosa 3-6 cm lg., 5-8 mm crassa. Caulis strict. teres, pallide virid. 25 cm alt. 3-4 mm crass. hysteranthus, vaginae 4-5 pallide virides 3-3.5 cm lgae. Racem. erect. conicus 6-8 cm lg. Bract. erectae, incurv. subconcavae, virides, membranaceae. Flor. mediocres, erecta-recurvi 1,5 cm lgi. Ovar. arcuat. 7 mm lg. basi attenuat. Sep. sordide viridi-pilosa, dorsale incurv. concavum.

1.1 cm lga 4 m̄ lt. sacco leviter incurvus ovario adnatus. Pet. membranac. erecta, cum sep. dorsali arcte conniventia, sordide alba 7 m̄ lg. 4 m̄ lt. Lab. membranac. album ad apicem vinosum 9 m̄ lg. 4 m̄ lt Col. erecta 4 m̄ lg. — Fl. Martio.

Rep. Uruguay. In Estanção Tranqueira da Rivera.

Stenorhynchus venustus Barb. Rodr. in Contrib. Jard. Bot. de Rio de Janeiro I (1901) 49 t. VII. (v. 67 (1902) t. X fig. A.) — Caule gracili, puberulo, 1-foliato, vagin. ad basin vaginantib. longe acuminatissim. sparse vestito, Fol. brevi-petiolata, late ovata, leviter trinervia, acuta v. obtusiuscula, petiolo 2plo majora. Racemo longiusculo, laxo, 6-8-floro, bract. lin-lanceolat. longe acuminat. glabr. concav. ovario majorib. ovario breviuscule pedicellato, glabro. Sep. subaequilong. lin-lanceolat. dorsali subacuto, ad apicem recurvo, lateralib. obtus. concav. basi satis oblique insert. sacco satis parvo, subgloboso, Pet. lineari-spathulat. obtus. ad apicem recurv. & marginib. crispate ciliat. sep. dorsali paulo minorib. Lab. erecto sepal. lateralib. satis majore, brevi-unguiculato, sagittato, medio contracto c. gynostemio subconnato, superne dilatato 3-lobo, lobul. lateralib. rotundat. lobo intermedio triangulo-ovato,

connivl. recurv. superne bicarinat. Gynost. erecto inferne antice puberulo, rostello brevissimo acuto.

Radices paucae, parvae, leviter flexuosae, obtusae. Caulis viridis villosus 11-12cm alt. 2-3mm crass. bracteae alb. viridi-punctatae. Fol. interne viridia, metallina, profunde canaliculato 5.5cm lga 4.2cm lt. petiolus viridi-alb. robustiuss. profunde canaliculat. 2.2cm lg. Flr. Racem. recurv. 3cm lg. laxus. bract. erectae acuminatae pallide virides, membranac. 1cm lgae 2mm lt. Flores minusculi, patuli; pedicelli graciles 4mm lgi, ovar. obscure 3-quetrū 4mm lg. Sep. albo-viridia, membranac. valde concava, dorsale 4mm lg 1mm lt. lateralia reflexa 7mm lg 1mm lt. saccus viridis, 2mm diam, Pet. alba, membranacea sepalo dorsali conniventia, apice reflexa 5mm lg. 1mm lt. Lab. alb. inferne sulfureū, membranac. 8mm lg. 5mm lt. Gynost. erect. 5mm lg. — Fl. Maio — Augustum.

[7] Rio de Janeiro. In silv. montan. Capeirão. In silva montana
[7] Gavea am botanischen Garten.
Jn den neuen Lichtungen (capoeirão) auf d. Bergen gefunden, welche den bot. Garten umgeben. [Die 2te Diagnose gleicht in allen Merkmalen der ersten]

<u>Masdevallia paulensis</u> Barb. Rodr. in Contrib. Jard. Bot. Rio de Jan. I (1901) 51 t. VI fig. A 1-6. — Caulib. secundariis brevissim. cylindrac. vagina 1 raniosa tect. Fol. parv. lineari-spathulat. apice minute tridenticulat. inferne attenuat. Scapo

minuto 1-floro, bractea vaginante, acuminata. Flor. parv. recurv. Sep. basi in cupula minuta coalit. sep. superiore incurvo lanceolato, acuminato, flavo purpureo-maculato lateralib. oblong. breviuscule caudat. patentib. vitellinis purpureo arguste maculat. Pet. carnos. brevissim. rhomboidalib. extus subcarinat. vitellin. Lab. petalis paulo longior oblongo, basi sagittato-calloso, supra mediū leviter constricto, apice subrotundo, recurvo, vitellino. Col. erecta, clavata, in mentū incurvū producta, clinandrio utrinq. elato-denticulato, postice apice 1-dentato producto. Anthera cucullata 1-locul. — Fol. erecta subrecurva, viridia v. viridi-purpurea, supra longitudinaliter canaliculata, subtus subcarinata 4-8 cm lg. 6-13 m² lt. Scap. erect. 10 cm lg. bracteae pallescenter, pedicelli graciles erecti, 5 m² lg. ovar. conicū 6-sulcatū. 2m² lg. Sep. dors. 7m² lg. 2 m² lt. lateralia basi leviter gibbosa 7m² lg. 3 m² lt. Lab. carnos. recurv. 3 m² lg. Col. 4m² lg. Brasil. Prov. Sao Paulo. (Fl. Maio. Am Morro Pelado)
Soll der Mard. sessilis Barb. Rod. verwandt sein.

Cyrtopodium lineatum Barb. Rodr. in Contrib. Jard. Bot. Rio de Janeiro I (1901) 52 t. VI fig. B. 1–8. – [Microbulbosa B. Rodr. in Vellozia I. 127] B. Scapo ramoso. bract. minimis]
Pseudobulb. parv. conic. v. elongat. paucifoliis, scapo erecto racemoso paucifloro, Sep. albis, superiore oblongo, acuto incurva, subundulata, lateralia 4 basi minute connata, patula, oblonga, acuta, dorso subcarinata. Pet. alba purp.-maculata, obovalia, sepalis minorib. subincurv. Lab. albo, breviter unguiculato, trilobo, lobul. lateralib. cresc. eliformib. apice recurv. horizontaliter purp. 3-lineatis. lobo medio late reniformi, incurvo, marginib. recurvis utrinq. purp. 2lineato, disco ad mediū cristato, crista carnosa bi-elevata (sic!). Col. incurva, dorso subangulosa, a basi in mentū producta, apice utrinq. sinuata, anthera cucullata, antice biconvexa, brevi-cristata.
Pseudobulbi 10–20 cm lg. 4 cm crassa (Dar nicht B. Rodr. Microbulbosa!) Scap. 30–40 cm lg. viridis, inferne vinosus. Fl. patuli; ovariū 2 cm lg. Sep. 2.5 cm lg. 7 m² lt. Pet. 1.2 cm lg. 6 m² lt. Lab. 1.5 cm lg. 2.8 cm lt. lobul. med. 5 m² lg. 2,1 m² lt. Col. 1.2 cm lg. mentū. 5 m² lg.
Matto Grosso. In silv. Capão secco. bei Chapada de Matto G. Fl. Junio.

<u>Stenorrhynchus taquaremboensis</u> B. Rodr. in Contrib. Jard. Botan. de Rio de Janeiro III (1902) 68 t. XI. – Caule longiusculo, satis robusto, aphyllo basi vaginato pubescente. Fol. radicalib. rosulat. erect. subsessilib. lanceolat. ~~acuminat.~~ acutis inferne attenuat. Spica elongata, laxa multiflora, bract. lanceolat. acuminat. erect. basi puberulentib. 3nerviis, flores paulo superantib. ovario subsessili, oblongo basi attenuato, dense puberulo. Sep. puberul. obtus. (dorsali lanceolato, concavo) basi gibbosis, sacco parvo, globoso, puberulo. Pet. lineari-spathulat. inferne attenuat. sepalo dorsali paulo minorib. Lab. erecto, apice recurvo, sepalis majore; oblongo-ovatus ad mediū puberulo, leviter 3lobo lobo medio reflexo, lateralib. erect. rotundat. basi sacciformi bicorniculato, Col. elongata, rostello obtuso longe rostrato. – Tuberidia 10–15 cm lg. Caulis puberulus 20–25 cm lg. Fol. 6–8 contemporanea viridia, erecta, 9 cm lg. 3 cm lt. petiolus profunde canaliculatus albicans. vaginae 2 (in scapo) carinatae, lin-lanc. acutissimae 5–7 cm lgae. racemus 9–10 cm lg. bracteae erectae pallide virides, rigidiusc. acuminatae 3lineatae. Flor. parvi recurvi pedicelli minimi puberuli.

Ovariū incurvū. tortū 9 mm lg. Sep. intus alba extus viridia, dorsale apice recurvū 1.4 cm lg. 3 mm lt. lateralia saccata 1 cm lg 2 mm lt. saccus globosus densiuscule puberulus. Pet. membranacea, c. sep. dors. conniventia alba, 9 mm lg 2 mm lt. Lab. concavū. 1.1 cm lg. medio 8 mm lt. infra 2 mm lt. Col. erecta 7 mm lg. Fl. Octobr.
Uruguay. Prov. Taquarembó (Arechavaleta) -

Habenaria Berroana B. Rodr. in Contrib. Jard. Bot. Rio de Janeiro IV (1907) 97 t. XIX. — Caule breviusculo, bifolio, Fol. lanceolat. acut. basi vaginantib. superne in bracteas foliaceas decrescentib. racemo brevi, paucifloro, bracteis lato lanceolat. acut. ovario 2plo minorib. Sep. dorsali lato-lanceolato, acuto, erecto, apiculato, carinato, ~~patulo~~, lateralib. subduplo latiorib. oblique lanceolat. apiculat. dorso carinat. patul. Pet. bipartit. partitione postica lanceolata, acuta, sep. dorsali aequilonga, antica in dente acutū partitioni posticae aequilonga reducta. Labello basi integro deinde trilobo, lobul. lateralib. suboblong. basi attenuat. divergentib. apice serrat. intermedio aequilongo, obtuso, ligulato, calcari incurvo filiformi cylindrico acuto. ovario aequilongo.

Caulis cum racemo 20 cm altus, viridis. Fol. 5 cm lg 1.7 cm lt. superiora minora. Racem. erect. ~~pauci~~florus (4-5-flor) bract. erectae, leviter carinatae. Flor. mediocr. ovarium 6-sulcat. fusiforme, tortū, arcuatū 1.5 cm lg. Sep. dors. viride, erect. apice recurvū 1.3 cm lg., lateral. concava 1.2 cm lg. Pet. alba, c. sep. dors. arcte conniventia 1 cm lg. Lab. alb. basi flavū, lobi later. 8 mm intermedius 8,8 mm² calcar 1.6 cm lg. – Fl. Decembri.

Uruguay In campis humid. ad Rivera.

Stenorhynchus montevidensis Barb. Rodr. in Contrib. Jard. Botan. Rio de Janeiro IV (1907) 98 t. XX fig. A. – Caule robustiusculo, dense foliato, Fol. oblongo-lanceol. acut. vaginat. inferne longe vaginantib. superiorib. decrescentib. Spica brevi, multiflora, valde compacta, ~~flor.~~ bracteis lanceol. v. lineari-lanceolat. acuminat. florib. longiorib. extus pubescentib. ovario cylindraceo, basi attenuato, torto, pubescente. Sep. oblong. obtus. extus pubescentib. aequilong. lateralib. oblique insert. sacco prominente ad mediū ovariū ~~ad~~ producto eique apice usq. adnato. Pet. oblong. basi attenuat. obtus. sepalo dors. paulo breviorib. Lab. basi erecto, superne arcuato-reflexo,

lanceolato, obtuso, sepal. lateralib. paulo majore, basi sagittato. Col. brevi, rostello elongato. — Flor. Decembri.
Caulis 20-30 cm lg. vaginae caulinae 9-12 erectae. Spica 6-10 flora, bract. erect. 2.5 cm lg. Flores parvi, virides 1.2 cm lgi, ovariū 4 mm lg. Sep. dors. 1.1 cm lg. 5 mm lt. fornicatū, lateralia patula 1.2 cm lg. 5 mm lt. Pet. 1. cm lg. Lab. album, basi trinerviū, sublobulat. saccatū 1.5 cm lg. Col. curvata 5 mm lg.
Uruguay. Montevideo ad Pan d'Azucar. Dep. de Rivera b. Tranqueras (Arechavaleta)

Stenorhynchus Arechavaletanii B. Rodr. in Contrib. Jard. Botan. Rio de Janeiro IV (1907) 99 t. XXI. — Caule robusto, levite piloso, multifolio. Fol. marginat. inferiorib. magn. oblong. acut. basi paulū vaginantib. superiorib. in vaginas oblongas acutas concavas decrescentib. Spica brevi, multiflora, bracteis lineari-lanceolat. acutissim. glabr. flores longiorib. ovario longe pyriformi, torto, lineato-pubescente. Sep. lato-lanceolat. acuminat. obtus. extus glabr. aequilong. lateralib. oblique insert. sacco prominente. Pet. oblongo-lanceolat. basi angustatis obtus. sep. dorsale paulo aequantib. Lab. erecto, anguste lanceolato, acuto sub 3 lobo, apice recurvo. sep. lateralib. minore. Col. glabra, rostello longe rostrato, acutissimo.

Caulis 30–40 cm lg. Fol. inferiora 14 cm lg. 2.5 cm lt. superior. 9 cm lg 1 cm lt. Spica 10 cm lg. laxa, bract. 4–7 mm lg. 1.6–1 cm lt. Flor. rubescentes, ovariu furfuraceus 1 cm lg. trilineatu, lin. puberrentib. Sep. dors. 1.1 cm lg 4 mm lt. lateralia 1.1 cm lg. 4 mm lt. asymetrica, basi saccata. Lab. 1.1 lg. 9 mm lt. Fl. Jan. Februario.

Uruguay. Dpto Rivera 6. Tranquera in camp. humid.

Pleurothallis lithophila Barb. Rodr. in Contrib. Jard. Bot. Rio de Janeiro IV (1907) 100 t. XXII fig. A. — Caule primario repente subnullo. Caulib. secundariis robustiorib. inferne teretib. supra compress. antice canaliculat. 1-articulat. pendul. raro erect. foleo longiorib. primu vagin. 2 tubulos. vestit. demu nud. Folio carnoso, sessili, ascendente concavo, elliptico, acuto, basi rotundato. florib. breviore pedicellat. 10–12 contemporaneis erect. Sep. carnos. subaequilong., dorsali lineari-lanceolato, acuto, lateralib. latiorib. acut. basi conat. Pet. lanceolato-rhombeis acut. anguste unguiculat. margine serrulat. sepalis ½ breviorib., basi & apice vinos. Lab. petalis aequilongo, unguiculato, obsigittato, leviter 3-lobo, lobul. lateralib. paulū prominentib. acut. erect. subtriangul. margine

semi-fimbriat. suborncato. fimbriis flavis, lobo medio linguiformi subrecurvo, disco ad mediū laevi, ecalloso. Col. claviformi, clinandrii margine dentato.

Caul. sigmoideus 9-10 cm lg. 2 mm crass. apice 1 cm lat. Fol. ad caulē reflexū 8-9 cm lg. 4-5 cm lt. Ovariū 3 mm lg. Sep. 1.1 cm lg. 2-4 mm lt. Pet. 5 mm lg. 3 mm lt. Lab. 6 mm lg. 4 mm lt.

Brasilien Prov. Rio am Corcovado gemein in den Bergen de la Gavea, auf den Wurzeln von Vellozia wachsend.

Camaridium cryptophoranthum Barb. Rodr. in Contr. Jard. Botan. Rio de Janeiro IV (1907) 101 t. XXIII. — Caulib. pendul. robust. elongat. divaricat., vagin. numeros. coriace. apice truncat. compacte imbricat. vestitis, superne densiuscule plurifoliat. Pseudobulb. axillarib. terminalibusq. remotissimis anguste ovalib. compress. apice diphyll. basi vagin. 2 opposit. magn. vestit. Fol. lineari-ligulat. apice oblique acut., pedunculis 1-3 contemporaneis pseudobulbo longiorib. vagin. 5-6 vestit. Sep. plus minus patul. lateralib. minorib. oblong. acut. concav. (superne dorso carinat. alb.) sepalo dorsali angustiorib. alb. Pet. lanceolat. acutiuscul. concav. Lab. carnosulo, sep. lateralib. minore trilobo, lobul. lateralib. erect. oblong. vinos. purp.-lineatis (punctatis,

intermedio lato, patulo, sulphureo, Disco basi bicalloso, call. carnos. elevat. inferiorib. minute granulos. (suboblongis), superiorib. 3glandulos., glandul. compress. albo sulphureo brunneo-maculato. Col. brevi, erecta, subclaviformis, t basi in pede paulo producta, anthera galeata. —

Caules tectes, articulati 4-5 mm lti, vaginae rigidae arcte adpressae, carinatae, 20-30 cm lgae. Pseudobulbi suberecti nitidi 4-6 cm lgi, 1.3-2.5 cm lti. Fol. basi conduplicata, erecto-recurva 18 cm-22 cm lg. 1.5-1.8 cm lt. Pedunculi patuli satis flexuosi 4-5 cm lgi, ovariū subclavatū postice angulatū, leviter arcuatū, 1 cm lg. Sep. 2,6-2,8 cm lga, 1.1-1,2 cm lt. Pet. erecta 2,5-2.6 cm lg, 8-9 mm lt. Lab. subconcavū 1.5 lg, 1,0 cm lt. Col. 9 mm lga. - Fl. Martio.

Brasilien: Prov. Alto Amazonas. In silv. humid. supra arbores secus Rio Yanapery prope Rio Negro, (aut in Prov. Pará).
Das Labellum eiñerl eher an das von Cyrtopodium.

Ionopsis pusilla Barb. Rodr. in Contr. Jard. Botan. Rio de Janeiro IV (1907) 102 t. XX fig. A. — Pseudobulb. minim. oblong. 1-fol. Fol. parv. carnos. subcylindrac. acut. basi attenuat. pedunculo filiformi, erecto, foliis minore, simplici v. superne

1-ramoso, 1-floro, Florib. parv. pedicellat. Sep. oblong. acut. apice recurv., lateralib. paulo minorib. basi connat. alb. Pet. quã sep. lateralia aequilong. lanceolato-oblong. obtus. recurv. alb. in medio disco roseo-bilineat. Lab. ambitu lanceolato, sep. lateralib. duplo majore, sessili, apice emarginato, basi utrinq. crispo, disco basi longe bilamellato, recurvo, albo, Col. brevi, clavata, alba, superne lateraliter alata apice uncinata. Capsula obovata, basi attenuata, bilineata.
Pseudobulbi 5 m̄ lg. 3 m̄ lt. Fol. erecta v. paulũ arcuata, atroviridia v. viridi-purpurea 3-7 cm lg. 2 m̄ crassa. Pedunculus erectus 5-6 cm lg. Pedicelli filiform. 4-6 m̄ lgi. Flores albi sep. 5-6 m̄ lg. 2-3 m̄ lt. Pet. convexa, 5 m̄ lg. 2-3 m̄ lt. Lab. suberectũ 7 m̄ lg. apice 3 m̄ lt. capsula 1.1 cm lg. 5 m̄ crassa.
Brasilien. Prov. Pará, auf Crescentia Cujete wachsend. Coll. Fr. Bucholtii Cogn. siehe oben.

Ponera geraensis Barb. Rodr. in Contrib. Jard. Botan. Rio de Janeiro IV (1907) 103 t. XXIII fig. C. – Caulib. fasciculat. elongat. tereti-compressis apice foliat. inferne denudat. Fol. anguste lineari-ligulat. acuminat. apice emarginat. basi vaginat. Florib. carnos. pedicellat. axillarib. 1-4 contemporaneis. aduodos in caule

defoliato. Sep. subacut. violaceo 5-striat. dorsali oblongo lateralib. oblique oblongo-triangularib. basi latior. Pet. sep. dorsali minorib. obovalib. acut. basi attenuat. violaceo nervat. Lab. sep. lateralib. longiore, oblongo, basi attenuato, apice profunde emarginato, lob. terminalib. rotundis disco basi bilamellato subrecurvo, violaceo-venoso. Col. brevi, basi longe mentosa apice 1-dentata. Fl. Junio.

Caules ascendentes, stricti, lignosi 30-50 cm lgi. Fol. erecto-patula, rigidiuscula, basi concava, disticha, 12-13 cm lg. 8 mm lt. ovarium curvatum 5 mm lg. Sep. erecta incurva concava dorsale 9 mm lg. 6 mm lt, lateralia 9 mm lg. basi 9 mm lt. Pet. erecta plana 9 mm lg. 5 mm lt. Lab. utrinq. subrecurvum 1,1 cm lg. apice 6 mm lt., basi 3 mm lt. Col. erecta basi mentosa 1 cm lg.

Brasilien. Prov. Minas-Geraes ad Serra das Bicas.

Campylocentrum aromaticum Barb. Rodr. in Contrib. Jard. Botan. Rio de Janeiro IV (1907) 103 t. XXIII fig. B. — Radicib. gracilib. Caulib. teretib. Fol. subcoriaceis oblongo-ligulat. subconvex. oblique emarginat., vagin. scabriusculi. Spicis alternis s. solitariis, brevib. sq. ad basin multifloris Florib. distich. aromatic. Sep. elliptic. acut. dorsali paulo

majore, apice recurv. Pet. subaequilong. acut. apice recurv. Lab. erecto sep. lateralib. aequilongo, subrhomboideo, obtuso, recurvo, lateraliter incurvo, calcari sepalis breviore, subgloboso, incurvo. Flor. Decembri.

Caules arcuati. saepe ramosi, dense radicantes, 20 cm lgi, radicib. adventitiis 20 cm lg. viridib. albo-striat. Fol. alterna, disticha, vaginae tubulosae, scabridae, lamina 5–6 cm lga, 1.4 cm lt. Pedunculi patuli 1.5 cm lgi. Sep. basi concava 1.1 cm lga, 5–7 mm lt. Pet. subaequalia, 1.2 cm lg. 6 mm lt. Lab. concavū basi angustatum. 1.6 cm lg. calcar arcuatū 5 mm lg. Cap. oblonga 3 mm lg.

Brasilien. In Wäldern bei Rio de Janeiro.

1. **Cirrhopetalum chryseum** Kränzl., nov. spec. in Fedde Rep. VIII (1910) 97.

Caulis repens, radicans, internodia ad 1,6 cm longa. Pseudobulbi ovati, rotundati, 3-rarius 4-anguli, carnosi, ad 1,9 cm longi et ad 1,2 cm crassi, monophylli. Folia sessilia, lanceolato-oblonga, acuta, carnosula, basi paulum angustata, ad 4,4 cm longa, ad 1,2 cm lata, nervo medio supra sulcato. Scapus filiformis, ad 6 cm longus, uniflorus, nudus; bracteola 1 minuta in basi pedicelli unici, pedicellus cum ovario 1 cm longus. Sepalum dorsale lineari-lanceolatum, brevi-acuminatum, lateralia aequilonga, lineari-acuta, leviter conglutinata, facile separanda, basi paulum infra dilatata, mentulum breve, saccatum formantia, omnia 1,3 cm longa, 2 mm lata. Petala e basi paulum latiore angustata, deinde lanceolata, acuminata, intus et extus velutina, fere 7 mm longa, 1,5 mm lata, haec omnia lutea v. petala imo aurea, basin versus purpureo-lineata v. punctata. Labellum basi biauriculatum, auriculi rotundati, erecti, ceterum lineare, supra sulcatum, apice obtusum, basi unguiculo brevi tenuissimo, irritabili pedi gynostemii curvato affixum, 9 mm longum, vix 1 mm latum. Stelidia anguste linearia, erecta, quam gynostemium longiora, leviter papillosa.

Provinz der Philippinen. — Luzon. (Loher.) Blühte im Februar 1910 im Botanischen Garten zu Erlangen.

Die beiden bisher bekannten, typisch einblütigen *Cirrhopetalum*-Arten von den Philippinen sind *C. antenniferum* Lindl. und *C. maxillare* Lindl., beide sind von Cuming gesammelt und beide nach ungenügendem Material sehr kurz beschrieben. Aber als Ersatz für fehlende Einzelheiten sind bei beiden die Dimensionen der Blüte angegeben und aus denen geht evident die Verschiedenheit hervor. *C. antenniferum* hat sehr grosse Blüten (the largest in the genus) und bei *C. maxillare* sind die seitlichen Sepalen doppelt so lang als das mittlere. Man könnte mit Rücksicht auf die Farbe an *C. auratum* Lindl. denken, bei dieser Art stehen aber die Blüten stets in den bekannten doldenähnlichen Trauben und dann haben die Blüten ein sehr kurzes oberes Sepalum, welche ebenso wie die Petalen gewimpert ist. Goldgelbe, purpurn gezeichnete Blüten, drei gleichlange Sepalen, grosse durchweg weichbehaarte ungewimperte Petalen und ein langes, gerades, tiefpurpurrotes Labellum ist eine Kombination von Merkmalen, welche in dieser Zusammenstellung noch nicht beobachtet ist. — Es verdient hervorgehoben zu werden, dass die einblütigen Cirrhopetalen bisher nur von den Philippinen bekannt sind.

2. **Trichoglottis Solerederi** Kränzl., nov. spec. in Fedde Repert. VIII (1910) 98.

Caules elongati, internodia 3—4 cm longa, superiora viridia, inferiora vaginis foliorum persistentibus suberosis obsita. Folia carnosa, basi vaginantia, sublanceolata, apice plerumque inaequalia, rarius aequaliter biloba, ad 12,5 cm longa ad 2,7 cm lata. Racemi uniflori, foliis oppositi, basi bracteis 2—3 brevissimis retusis praediti, pedicelli cum ovariis, hexagonis valde tortis circ. 1 cm longi. Sepala obovato-oblonga, obtusa incurva, laete viridia, fasciis brunneo-purpureis parallelis transversis quinis in sepalo quoque, lateralia basi connata, ceterum a dorsali vix diversa, 9—10 mm longa, antice 3—4 mm lata. Petala multo minora, ceterum similia, viridia, fasciis 3 (interdum in maculas solutis) decora, 6—7 mm longa, 2 mm lata. Haec omnia intus intensius extus pallidius colorata, sed semper eisdem coloribus. Labellum basi brevi-saccatum, lobi laterales erecti, quadrati, breves; lobus intermedius, subtus carinatus, ovatus, longe sensimque angustatus, totus discus subtus et praesertim supra dense tomentosus, basi incrassatus (non proprie callosus) labellum album (mox lutescens?) maculis 2 plus minus confluentibus sanguineis medio in disco, totum labellum 12 mm longum, lobus intermedius 8 mm longus, 3—4 mm latus. Gynostemium breve, stelidia linearia longissima, incurva, longe setosa, anthera lata, antice rotundato-retusa rostellum bifidum. — Flores odorem insipidum exhalantes.

Philippinen. — Luzon. Leg. Loher, misit Prof. Dr. Solereder vir cl.

Die Pflanze gehört unzweifelhaft in die Verwandtschaft von *Tr. lanceolaria* Bl., hat aber einen völlig verschiedenen mittleren Lappen des Labellums, sehr viel längere, langborstige Stelidien. oder wie sie in älteren Diagnosen genannt wurden, „brachia gynostemii“. *Tr. bataanensis* Ames ist nach der Abbildung und Diagnose in Orchidaceae, I (1905), 106 zu urteilen, eine noch stärker abweichende Art und *Tr. flexuosa* Rolfe (l. c., 107) ist, soweit ich aus Herrn Rolfes Beschreibung (streng genommen ist es mehr eine Häufung von Dimensionen als Diagnose) herauszulesen vermag, nicht identisch. — Die Pflanze ist von Herrn A. Loher entdeckt, sie blühte zuerst im Botanischen Garten zu Erlangen im Dezember 1909.

Bot. Mag. (1909) t. 8281.

Bulbophyllum (Cirrhopet.) campanulatum Rolfe in Kew Bull. 1909. 62.

Oxyricera ovata Bail. in Queensl. Agric. Journ. XIX pt. 5. (1907) 273. — Rhizome creeping somewhat nodulose, slender more or less covered by thin almost transparent scales. Leaves ovate, nearly sessile, 5 lin. lg. 3 lin. br. coriaceous. Peduncles incl. filiform 6 lin. lg. purplish enlarged at the base in a cluster of transparent bracts. Flowers deep-purple, expanding to a diam. of 3 lin. segments acuminate, the labell. very glandular. Only 3 flowers all more or less imperfect none with a perfect labellum. Resembles to the Oxyr. purpurascens Deane Fitzg. Austr. Orch. (womit sie höchst wahrscheinlich identisch sein wird)

Ambasi. Brit. N. Guinea (Copel. King)

Eria amberiensis Bail. in Queensl. Agric. Journ XIX pt. 5 (1907) 273. — Upper portion of pseudobulb compressed ½ in broad, covered by membranous scales. Leaves c. 10 in lg. the lower 1½ in somewhat twisted forming a harshly winged petiole, lamina oblong, acuminate about 2 in br. near the centre. thin coriaceous about 20-nerved. Racem. lateral c. 10-11 in lg. of which the peduncle occupies c. 2½ in. bracts very numerous ovate acuminate, scarious about 3 lin lg. Pedicel with ovary erect straight 8-9 lin lg. Expanded flowers scarcely exceeding 3 lin diam. Sep. ovate apiculate incurved c. 2 lin. lg. marked with 3 lines glabrescent inside scurfy on the back. Pet. much narrower than the sepals glabrous lined like the sep. Lab. attached to the elongated base of the col. the lower portion or winged claw sagittate terminal lobe returned upon the elongate base of the col. terminal lobe very dark coloured, margins undulate scarcely longer than the sepals. Col short & broad anther cells white. The whole inflorescence clothed by a brown short scurfy scarious covering, the small scales almost stellate.

? Ambari. Brit. N. Guin. (Cop. King).

Hyp... [illegible]

<u>Eulophia papuana</u> Bail. in Queensl. Agric. Journ. <u>XIX</u> pt. 5 (1907) 273. — Pseudob. a few inches high of 2 or 3 nodes. somewhat slender, clothed by the torn bases of the early leaves or scales & bearing 1 or more leaves on slender petioles about 2 or 3 in. lg. ~~Leaf~~ Lamina lanceol. 6 in lg. scarcely 1½ in broad, 3-nerved with 3 finer nerves between them. Scape from near the base of the ps. bulb. 20 in high. bracts narrow lanceol. on the lower part of the scape ~~½~~ 1½ in lg. floral bracts filiform. Flowers c. 18. Pedicels slender with the ovary 6–9 lin lg. Sep. & pet. nearly equal, linear more or less falcate with filiform points. marked in the centre with 2 or more lines. Lab. scarcely as long as the sep. broad, 3 lobed; lobes obscure, the middle one smaller than the others, all closely marked by dark forked lines bearing on the base a flat or a 2 parted leafy appendage. Col. incurved half the height of the sepals. The gibbous spur at base of the column more or less reflected.

Ambari. Brit. N. Guinea (Cap. King.)

Saccolabium Bagnoliana Bail. in Queensl. Agric. Journ. VII pt. 4 (1900) 350. Epiph. Stem probably long. flexuose, angular, 1½-2 lin broad, appearing wider at the leafy portion. Leaves linear flat 3-5½ in lg. 6-9 lin. broad, thin, apex unequally-sided & irregularly torn or toothed. Raceme dense, erect, lateral Peduncle slender 5 in lg. bearing a raceme of about 2 in. bracts in the scape 2. floral bracts filiform ½ length of the pedicels (7 lines long), sep. & pet. oblong apiculate scarcely 2 lin. lg. adnate to the basal projection of the col. Lab. scarcely as long as the sep. & pet. the middle lobe narrow incurved. Spur, club-shaped longer than the pedicels & curved. Col. short, wings about ½ the length of the col. truncate at the ~~top~~ lower end. Poll. globular.

? Brit. N. Guinea (Giulianetti)

Vanilla Giulianettii Bail. l.c. 350. — Stem climbing angular. Leaves sessile, oblong, tapering at both ends, thin 10 in lg. 2¼ in br. about 27 nerved. Fruiting raceme stout about 4 in lg. lower bracts orbicular, capsule curved 8 in lg 10 lin diam. smooth, fleshy, sulcate. Allied to V. albida Bl.

Anoectochilus Yatesae Bail. in Queensld. Agric. Journ. XIX pt. 3 (1907) p. ? — More or less pubescent. creeping the flowering stem creeping at the base & bearing 3 leaves erect 5 in high. bearing 3 sessile flowers & 3 empty bracts. Leaves 5-nerved rotund-ovate, ~~with a~~ more or less elongated point. dark green reticulated with silvery white lines, when fading becoming deep red. petiole 2 lin. lg. sheathing part 3 lin. Ovary 6 lin. lg. Sepals lanceol. 4 lin lg. rather broad & thick at the base, brownish or pinkish. Pet. white or pinkish nearly as long as the sep. linear & very membranous, faintly showing a midrib. Lab. much longer, lobed near the base & bearing at the apex 2 obliquely triangular small lobes, the intermediate marginal laciniae long & flexuose the disk calli minute, red. Spur rather prominent, white, membranous. blunt. bearing inside near the base(?) 2 tufts of white minute calli. Col. short. the appendages rather large. —

? Near Kuranda (C. J. Wild. 1891), Mrs. Remillon & Mrs. Yates — alle von demselben Standort.

? Scheint kaum verschieden von An. regalis.

<u>Sarcolabium Coplandi</u> Bailey in Queensl. Agric. Journ. XIX pt. 5 (1907) 274. — Stem climbing somewhat compressed. clothed by the bases of old leaves which being prominently nerved give the stem a corrugated appearance. Leaves distichous 5 in lg. closely conduplicate, scarcely 3/4 in br. when unfolded. emarginate, in the fold'd state appearing obtuse. The long roots white & rigid. Inflorescence erect rigid flexuose in the peduncle, about 11 in lg. bracts of the peduncle closely sheathing 2 or 3 at the base & 3 distant higher about 1/2 lin lg. floral bracts triangular about 1 lin long. raceme about 4 in lg. Flowers numerous slightly exceeding 6 lin diam. segments with prominent nerves. Label equal in length to the other segments. Spur incurved blunt, rostellum long, twisted.
? Aucbari. Brit. N. Guinea. (Cop. King)
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<u>Spathoglottis papuana</u> Bail. in Queensl. Agric. Journ. VII pt. 4 (1900) 350. — A terrestrial spec: with conical ps. bulbs & long broad leaves. Flowers from deep purple to near white, very showy.—
New Guinea. — ~~Das ist alles~~! Genauere Diagn. l. c. III pt. 2. (1898) 6

Thelymitra M'Kibbinii F. v. Muell. in Chemist & Druggist Octob. 1881. – Quite glabrous, rather dwarf, basal leaf very narrow, channelled, stem leaf-bracts like solitary. Flowers 2 rarely 1. Sep. acute faintly streaked by subtle veins; the outer violet-coloured, the inner as well as the slightly shorter labellum more deeply blue, terminal appendage on each side of the column bright yellow straight, nearly oblong, almost sessile, minutely papillar fringed, reaching only as high as the anther crest between the rather widely disconnected appendages much shorter than the anther, yellow, hardly denticulated, column from below the crest light blue, anther pale yellow, almost smooth, rather blunt.

Among quartz gravel on hills along the Upper Loddon Riv. near Maryborough. (John M'Kibben)

Belongs to the sect. Bianrella. From the 2 other T. venosa & cyanea at once distinguished by the appendages of the column neither twisted, nor smooth, nor close to each other, furthermore the anther is not acuminated. It verges in some respect to T. Macmillani, with which it is associated on the Loddon (probably hybrid ✕ ~~of~~ arisen from T. antennifera ✕ carnea. In flower towards the end of September – October.

Bulbophyllum Luckraftii F. v. Müll. South. Sc. Rec. April 1882. – Pseudobulbs truncate-conical, bluntly triangular. leaves solitary oblong, provided with a very short petiole. Flowers rather large on long & single pedicels. Upper lobe of the calyx arched narrow lanceolar, channelled. lower lobes broadly adnate to the column falcate semilanceolate, convergent, nearly as long as the upper lobe & as well purplish towards the base & yellow towards the summit. Inner lobes linear lanceolate purplish red almost throughout, somewhat shorter than the others & of more tender structure. Lab. tongue shaped somewhat arched, smooth, not lobed, 3 or 4 times shorter than the sepals, oscillating on a very short unguis & petalately protruding beyond the latter. Col. without wings or teeth, free only at its summit. Ovary slender.

In the Solomon group. Ltn Luckraft R. N.

Rhizome creeping. the scales finally disintegrating into bristles. Pseudob. about 1 inch high. Leaves 3-5 in. lg. Odor that of rhubarb root Peduncle obliterated. pedicell 2-3 inch. lg. enclosed at the base by 2 short cylindrical bracts. Sepals about 1" lg. Only a slight turgescence indicating the saccate protuberance

Caleya Sullivanii F. v. Müll. in Chemist & Druggist Jan. 1882. — Stem very slender comparatively short, its lowest portion enclosed in a membranous narrow, slightly downy cylinder. Leaf narrow linear inserted some distance from the base of the stem. No bracts between the leaf & the floral bracts. Flowers 2 or 3 very small. Inner pair of segments conspicuously distant from the outer pair. Lab. lanceolar ovate passing from a gradually attenuated base into curved stipes of hardly half the length pointed at the summit very bulging above, amply hollow-concave beneath beset with papillular glands only towards the centre not appendiculated, membrane of the column terminated on each side by a small deltoid lobe, fruit oblique egg shaped.

Near Mt Zero (O. Sullivan)

Differs from C. minor chiefly by having the labellum not in a peltate manner attached to the stipes, nor its apex blunt, nor its base appendiculated, it being also more dilated towards the middle & its membranous margin & apex remaining free of callous tubercles. This abnormal structure of the lab. removes the species likewise from the other congeners offering an approach to the Genoplesium section of Prasophyllum.

58. Bulbophyll. Coplandi Bail. in Queensl. Agric. Journ. XVII (1906) 232. — Rhizome creeping, about 1½ lin diam. rooting copiously. Pseudob. ovate, 4 lin. lg. 3½ lin broad of a glossy bright yellow, embedded at the base in thin scarious torn scales. Leaves orbicular ovate thick about ½ in lg. longitudinally striate, very shortly tapering to a twisted base, apex emarginate. Flowers large for the size of the plant. Pedicels with ovary about 7 lin lg. erect. Expanded flower ¾ in diam. segments narrowed into thread like points & prominently lined. Pet. much thinner & shorter than the sep. Lab. with a veiny elongated membranous end-lobe. Spur short & obtuse. The 2 dry flowers did not allow of more minute description.

East coast. New Guinea (Rev. Cop. King.)

Liparis Swensonii Bail. in Queensl. Agricult. Journ. XVI (1906) pt. 9. 564. — Stems crowded from a shortly creeping rhizome thickened at the base into compressed oval pseudobulbs green & smooth often more or less covered by the membranous torn bases of the early leaves. Leaves linear. lanceol. falcate, seldom more than 1 others reduced to sheaths only 3-6 in lg. 6-15 lin broad bluntly acuminate green rather fleshy sharply keeled the longitudinal nerves only showing in the dead leaf. Peduncle about 3 in lg. 2 lin broad

semiterete, the margins bearing narrow thin transparent wings. Rhachis angular 4 in lg. bearing 12 or more flowers. Bracts none on the peduncle, floral over 6 lin lg. upper ones shorter very slender tapering to fine thread like points. Pedicels slender scarcely as long as the bracts. Buds subulate from 3-4 lin lg. Sep. & pet. about 4 lin. lg. very narrow lanceolate, soon reflexed over the pedicel, pale yellow. Lab. as long as the sep. & ~~pet.~~ twice as broad, the erect base closely embracing the column. the lamina elongated, flat, pale yellow, membranous & veined; the lower portion which embrace the column deep orange & transversely ~~veined~~ wrinkled. Col. pale yellow, narrowly ~~winged~~, incurved, nearly as long as the sepals. Anther lid pale yellow & hairy. pollen masses white.

? Emu vale. (C. Swenson)

<u>Habenaria Banfieldii</u> Bailey Queensl. Agr. Jour. XVI (1906) 564.
Leaves 5 sheaths all rather loose, lamina of the lowest short broad & very obtuse, scarcely exceed. 1 in lg. the other 2-3½ in lg, 1-1½ in br. the upper one more or less acuminate, margins wavy, nerves 10 or more. Peduncle with the raceme 10 in, bracts of the peduncle 9, the lowest about 1 in lg, the other becoming smaller. Raceme puberous, pedicels 4 lin. lg. twisted & closely appressed to the rhachis. Flowers in a rather dense raceme, about 7 in lg. bracts ~~ovat~~ narrow lanceolate c. 6½ lin. lg. scurfy & dotted with glands. Pedicels flattened & twisted. Perianth scarcely more than 3 lin lg. Lab. very much broader than the oth. segments but not much longer ending in 3 obtuse lobes disk in the lower part glandular. Spur scrotiform.
? On hilltops. Dunk Fold. (Banfield) Tuber unknown.

Bulbophyllum lageniforme. Bailey in Queensld. Agric. Journ. XV pt. 1. (1904) 494. — Rhizome creeping, rather slender & nearly glabrous, corrugated when dry. Pseudob. numerous but not crowded, flask-shaped like utricle of Carex smooth becoming corrugat. when dry. Leaves solitary, lin-lanceolate, 1 3/4 in. lg. widest part about 3 lin., midrib sharp & prominent, with 00 veins on both sides, upper surface foveolar dotted. Peduncles filiform, about as long as the leaves, bearing a linear bract near the centre & a similar but shorter one close under the flower. Flowers 1 or at times 2. open & somewhat bell shaped. Pedicels about 3 lin lg. slightly enlarging upwards & prominently tuberculose in the upper part. Sep. 4 lin. lg. 5-nerved, dorsal one lanceol. lateral much broader at the base, apex recurved. Pet. ovate-lanceolate shorter than the seps. transparent 3-nerved, the lateral ones not reaching the apex of the petal. Lab. coriaceous articulate at the base of the col. shorther than the other segments, ovate, the margin recurved, the disk with 3 prominent ribs. Col. rather slender in height a little over 1/3 of the petals, wings prominent truncate or toothed at the top, anther-lid depressed.

? Queensland. Amongst moss. Summit of Mt. Bellenden-Ker & 1 plant bearing 2 flowers (Bell-Ker Exped 1901). The latter specimen having preserved in formalin all colouring of the flowers was lost.

Phalaenopsis Rosenstromii Bailey in Queensl. Agric. Journ. XVII (1906) 231. — Leaves deep green, 4 or 5, distichous, 9 in. lg. 2 in broad, oblong of comparatively thin texture, midrib not very prominent, longitudinal nerves numerous, transverse veins numerous in dried specimens. apex obliquely emarginate. lamina obliquely spreading above the sheath, the latter hard-coriaceous, about 2 in. long & more or less flattened. Panicle composed of racemose branches of about 10 in long, bearing about 8-10 showy white flowers, here & there stained with yellow. Pedicels slender about 1½ in lg. Sep. ovate-lanceolate about 1 in long cuneate, the dorsal one rather broader than the others. Pet. roundish ovate, about 13 lin. broad scarcely clawed. Lab. about as long as the other segments 3-lobed, with a 2-horned callosity at the base, lateral lobes curved over the base of the segment, middle lobe somewhat strap-shaped, bearing at its apex 2 twisted cirrhi. Col. incurved angular. Rostell. prominent. On trees high from the ground. Daintry Riv. (Rosenstrom)

Sarcochilus Weinthalii Bail. Queensl. Agric. Journ. (Octob. 1903.) 346. — Stems short, roots white, rather fleshy. Leaves about 5, somewhat curled, nearly erect or spreading, about 2 in lg. & 5 lin broad, obtuse or somewhat acute. Racem. with the peduncle slightly longer than the leaves bearing from 4–9 prominently spotted fragrant flowers. Bracts narrow lanceolate 1½–2 lin lg. sometimes with a large dark-coloured spot near the middle. Pedic. with ovary 2 lin lg. dotted. Sep. & pet. similar, the latter rather shorter than the former, oblong, obtuse, marked along the back with from 1–3 large dark-purple spots, which show through to the face of the segment, each marked with a cluster of smaller spots at the base. Lab. sessile at the end of the foot of the column, later. lobes linear falcate incurved & meeting at or above the anther, purple dotted on the face, middle lobe almost globular, velvety glandulose on the back with a large purple spot at the centre. Disk with a few short purple lines & 2 yellow spots at the base, transverse scale thin, entire slightly yellow stained sides woolly-glandulose. Col. yellowish green ½ line high. Fl. Sept.

Main Range, near Toowoomba (Weinthal) Epiph.

Viel zu viel Worte über die Färbung.

Lyperanthus Forrestii F. v. Müll. in Wing South. Sc. Rec. March 1882. — Leaves at or near the base of the stem 3. the lowest ovate lanceolate, all several times shorter than the stem, a solitary smaller narrow-lanceolate leaf near the middle of the stem. Flowers 2 or 3 on conspicuous stalklets, bracts rather large, ovate or narrow lanceolate acuminate, a pedicellate very minute floral rudiment placed with the uppermost stalklet. Sep. dors. cymbeous-lanceolate, the other sep. & pet. narrow or linear oblong, much attenuated towards the base, all of nearly equal length, rather blunt & somewhat spotted. Lab. by nearly 1/3 shorter than the sep & pet. rhomboid wedgeshaped attenuated into a narrow base, slightly crenulated & undulated neither distinctly lobed nor ridged but dotted all over with minute sessile glands. Col. somewhat shorter than the labellum or nearly as long, very narrowly winged anther suddenly into a very short & narrow point.

Near Stirling Ranges (Forrest)

This W. Austral. species comes systematically nearest to L. ellipticus from N. S. W., welche (nach Müllers Ansicht) vielleicht vom Lypp. zu trennen & als Fitzgeraldia ~~zu Caladenia~~ zu plagiiren ist. Die Ex. von Lypp. Forrestii waren alle „much shrivelled." Die Gattung Fitzgeraldia scheint mir hier etablirt zu sein & zwar bestehend aus L. ellipticus & Forrestii; die Merkmale sollen geben „the creeping root stock & reversed flowers."
(damit allein ist nicht viel anzufangen)

64. Calanthe Langei F. v. Müll. in Wing's South. Sc. Rec. II N.S. I (1885). Leaves elongate-lanceolar, gradually acuminated, narrowed into a channelled stalk, several tufts of leaves from one rhizome. Flowerstalks basal much surpassed in length by the leaves, beset by several large green clasping bracts. Flowers numerous pendant crowded into a dense glabrous raceme, floral bracts membranous linear, gradually much pointed, reaching to the summit of the flowers, early deciduous, stalklets short. Calyx tube about half as long as the lobes, the latter deep yellow not spreading, upper one ovate & somewhat acute, lateral lobes lanceolate blunt at the base. Petals nearly as long ovate acute. Lab. slightly shorter adnate up to the summit of the gynostemium, thence spathular-obovate, apiculate. at the base of the free portion lobulated by 2 minute almost deltoid teeth, towards the base gradually raised into 2 slight longitudinal elevations, spur hardly half as long as the flower, turgid, ovate cylindric, blunt rostellum not elongated.

? New Caledonien. Von Consul Layard an Mr ~~Dr~~ Lange in Melbourne gesandt.

?Leaves 2', towards the middle 2½ in br. Racem. 3-4 in Flowers vitellinous in colour. Flowers about ½ in or not longer saccate basal prolongation of the labell. about as long as the ovary filled with nectar.

Sehr ähnlich C. curculigoides, from which it differs, the flowers being more bent downwards, smaller lateral lobes of the lip shorter & more straight thicker spur & not long pointed rostellum

Eriochilus fimbriatus F. v. Müll. in South. Sc. Rec. July 1882. — Leptoceras fimbr. Ldl. Bot. Reg. XXV app. 53 (1839) L. pectinat. Ldl. l. c. Caladenia fimbr. Rf. Beitr. (1871) 65.

Glabrous. Leaf basal ovate or narrow-lanceolar, rather large, fully 3-5 nerved, purplish beneath, developed at the time of flowering. Stem bearing an empty bract below the middle. Flowers 1-3. ~~Sepals~~ Petals somewhat longer the the sep. dorsale, sep. lat. pendent narrow. Lab. almost sessile, cuneate semiorbicular, downy at the surface fringed in front & there faintly 3-lobulated, rather longer than the column but not fully half as long as the lower & the inner lobes of the calyx (d. h. die seitl. sepal & petalen

Near Swan River (Drummond). Various places of W. Austral. (Fitzgerald). In the vicinity of Mt Lofty (Tepper) South-eastern side of Port Philipp on heathy ground (French)

Pterostylis Baptistii Fitzg. Bailey in Queensld. Agric. Journ. XV (1904) 494.

Queensland. Old Cleveland road, swamps. (Bailey & Cheeseman)

Cryptanthes fimbriata R. Br. Bailey in Queensld. Agric. Journ. XVII pt. 1 (1906) 28.

Ouna Fold. (Banfield.)

Sarcochilus Longmanii Bail. in Queensl. Agric. Journ. XXIII pt. 5 (1909) 261. – Stem about 1 in lg. the lower half bearing roots, the upper leaves. Roots thick. Leaves linear apiculate few (5) falcate, light green 2-3 in. lg. about 4 or 5 lin. broad, midrib & numerous // veins, racemes longer than the leaves, slender, bearing about 10 pale yellowish or cream coloured flowers, the segments curving inward, thus almost cup shaped. floral bracts ovate-lanceolate ~~ab~~ c. 1/2 of the pedicels, pedic. 2 1/2 lin lg. Sep. & pet. ovate the latter being rather broader than the former about 3 lin. lg. slightly stained near the base with yellowish green. Lab. with sometimes a few reddish marks, the lateral lobes more or less tomentose; disk calli erect. Col. short. poll. deep. yellow. – Fl. Sept.
Main range, near Toowoomba (Longman)

Geodorum dilatatum R. Br. var. Bailey Contrib. Queensld Fl. (1903) 1. – Pseudob. conical globose about 1 1/4 in high. Leafy stems about 6 in high, usually bearing 3 leaves & a lower one without lamina. Leaves plicate lanceolate, about 1 ft lg. Scape about 1 ft high flowers of raceme few, the raceme at first decurved becoming erect at the flowers expand. Bracts at base of raceme & below about 2 in lg. the upper ones much smaller.

Pedicels angular 3-4 lin lg. Lat. sep. somewhat falcate about 4 lin lg. linear apiculate, the dorsal straight longer & broader. Pet. obtuse, long & dorsal sep. broad, blotched. Lab. broadly saccate, about 5 lin lg. very obtuse & emarginate at the end, blotched & marked with dotted purplish lines, the disk stained with yellow in the centre but without platter or calli, only marked with more or less prominent veins. Col. short & broad, slightly red-stained at the base.

? Vrylia Point, Gulf of Carpentaria – J. F. Bailey.

O. Beccarii novitiae orchidaceae papuanae auct. Reichenb. f. Botan. Centralbl. XXVIII (1886) 343-345.

<u>Thrixspermum platyphyllum</u> Reichb. f. in Botan. Centralbl. XXVIII (1886) 343. — Caule valido, brevi, oligophyllo (8). Foliis latissim. ligulat. acut., pedunculis folia subaequantib. multiflor. densiflor., bracteis triangul. minut. sep. oblongo-ligulat. obtuse acut., pet. angustiorib., labelli breviter unguiculati lamina 4lobula, lobul. arrect., lob. lateralib. semioblong. lobulo mediano transverso bilobo, leviter emarginato, antrorsū minutissime denticulato, calcari amplo cylindraceo, columnae subaequilongo, medio in parte ampliore subsphaericā antice supeme introrso excavatā dilatato, col. gracili.

Folia ultra pedalia usq. 4 poll. lata. Flores illis Thr. (Sarcochili) tridentati Rf subaequales. — Valde affine praesert. calcaris indole Thr. indusiatum Rf. labelli laciniulis lateralib. falcat. egregie differt. — Neu-Guinea.

Thrixspermum Beccarii Reichb. f. l. c. 343. Caule humili. Fol. cuneato-ligulat. apice inaequalib., altera parte longiore acutis, peduncul. gracilib. erect. Sep. unguiculat. ovat. acut. Pet. subaequalib. Lab. in ungue longo, lacinia mediana triangula carnosa minuta, lacin. lateralib. falcat. obtus. (superne nunc apice versus obscurissime serrat.) calcari cylindraceo compresso apice versus nunc coarctato, callo supra ostium postico intense oblongo, col. 3gona brevi.

Caules bipollicares. Fol. pedalia superne 1 poll. lata. Pedunculi pedales, flores illis Sarcanthi teretifolii Ldl. subaequales.

Arachnis Beccarii Rf. l. c. 343. — Fol. lato-ligulat. acuminat. 2 m long. 6 cm lat. (statu sicco), panicula amplissima, validissima, ramosissima, bract. triangulo semiovat. brevissim. Sep. ligulato-obovat. obtus., lateralib. extus per nervum medium carinat. Pet. spathulat. obtus. Lab. breviore, laciniis lateralib. irregulariter trapezoideis, margine infimo

interno minute subtriangul. membranaceis, lacinia mediana cartilaginea producta lineari, incidente lamina antice oblonga obtusangula introrsum emarginata subbilobula, utrinq. carinata, calcari in confinio laciniarum lateralium & laciniae mediae retrorsum gibbo angulato minutissimo, carinis 5 humilib. longitudinaliter per discum inter lacinias laterales. Flor. illis Vandae Roxburghii subaequales, albidi brunneo maculati ex pictura nitidissima.

Observatio. Renantherae genus cum fuerit Esmeralda orbatum etiam Arachnidis Bl. genus restituendum videtur. Species sunt. Arachnis flos aeris = Epidendrum fl. aeris L.

Arachn. Hookeriana = Renanthera Hooker. Rf.
nunc etiam in Cochinchina lecta.

Arachn. labrosa = Arrhynchium labrosum Lindl.

Arachn. Sulingi = Aerides Sulingi Bl.

Arachn. Rohaniana = Renanthera Rohan. Rf.

Arachn. Lowii = Vanda Lowii Ldl.

Cleisostoma firmulum Rf. l.c. 344. — Caule valido firmo, vagin. valde aphyllaceis, fol. rigid. lineariligulat. apice obtuse bilob., pedunculo dimidio brevioribus

fractiflex., bracteis triangul. minut. Sep. oblongo-ligulat. obtuse acut. Pet. linearib. acut. Lab. basi c. columna connat. trifido, lacin. lateralib. triangul. apice uncinat. antrors. lacinia mediana ligulata, acuta, revoluta, calcari retrors. intra lacinias laterales & laciniā mediā, gibbere in ima basi laciniae medianae extus, lamella bidentata sub columna, lamella latiore bidentata inter lacinias laterales. — Valde affine Cleis. subvioleaceo Rf. cujus fabrica prope eadem, calcar tamen intra lacinias laterales exit & loco lamella bidentatae infracolumnaris dens longus antice sulcatus prodit. — Caulis spithameus. Folia approximata 5-6 poll. lga, 1/2 poll. lata. Pedunculi 2 poll. lgi. sat multiflori. Flores illis Sarcanthi rostrati Lindl. duplo minores.

<u>Sarcanthus praealtus</u> Rf. l.c. 344. — Caule usq. 2 m alto, flexuoso valido. Fol. ligulat. obtuse bilob. 15 cm long. 3 cm ltis. panicul. valid. brachyclad. densius florid. bract. ovat. coriac. ovaria pedicellata longe non aequantib. vagin. fallentib. ramorū subaequalib. Sep. oblong. obtus. coriaceis. Pet. angustiorib. Lab. trifido calcari a basi remoto

a laciniis lateralib. decurrentib. in medio labello obluso didymo, brevi, lacin. lateralib. oblong. apice saepe bidentat., lacinia mediana lineari-lancea apice inflexo, callo longo sulcato sub columna inter lacinias laterales carina 1 semioblonga, antice, altera introrsū bicruri postice in lacinia mediana; calcaris septo in pariete antico humillimo. — Decurrens laciniarū lateraliū labelli multo longior quam in peraffini specie *S. nagarensi* Rf. quae septū optime evolutū in calcari monstrat, dū in hac valde obscurū. Sep. & pet. flava, brunneo-striata Lab. albū striolis purpur. transversis. Ab ill. Beccar. picta.

Luisia Beccarii Rf. l. c. 344. — Caule crassiusculo fol. teretib. obtuse acut., racem. abbreviat. crass. pauciflor., bract. triangul. parv. Sep. triangulo-ligulat. supra nervū mediū extus carinat. lateralib. oblique retus. Pet. ligulat. acut. sepala quarta tertiave excedentib., hypochilio rhombeo transverso utrinq. acuto. portione mediana acuta antice supra epichiliū semiellipticū progrediente. — Dimensiones *L. teturae* Rf. cui valde affinis. Recedit labelli figura petal. q. longiorib. bene acutis.

7. Coelogyne Beccarii Rf. siehe Monographie S. 32.
8. Microstylis pedicellaris Rf. l.c. 345. — Caulescens, Fol. petiolat. oblong. acut. 8–9, pedunculo longe exserto, longe lateq. racemoso, usq. basin versus florido, bract. lineari-lanceol. deflex. minut., ovariis pedicellat. sepala sexies v. septies superantib. Florib. minut. Sep. oblongo ligulat. obtus. Pet. falcat. obtus. Lab. sagittato, dentib. desv. magn. 3 utrinq. suprapposit., lacinia antica bidentata cū apiculo interjecto, col. genetica (v. generis) Caulis ascendens. Habitus Goodyerae cujusdā. Pars petiolaris foli 1/5 usq. 3/4 poll. lata, lamina usq. 2 poll. longa, 3/4 poll. lata. Pedunculus spithameus. Flores hysterochronici illis Microstylidis spiralae paulo minores. Labelli discus etiā siccus intensissime purpureus. — E grege Micr. Rheedii. Ab omnib. differt pedicell. longissimis.
Aphyllorchis Odoardi Rf. l.c. 345. — Caule gracillimo filiformi paucivaginato, vagin. valde distantib. (senis?) racemo paucifloro. Florib. evolut. 2, tertio tabescente, bract. oblongo-lanceol. acuminat. pedicello subaequalib. flore ringente. Sep. dorsali cuneato oblongo, acuto, sepa-

lateralib. lineari-ligulat., curv. deflex. Pet. oblong. acut. Labelli lacin. lateralib. triangul. erect. juxta columnae basin, lacinia mediana ab ungue angusto, obtuse triangula (apice quidē anceipite - an semper?). Col. crassa, juxta foveā utrinq. angulata. - Tenerrima & minima omniū. Aphyll. montana Rf. gigas est, quando comparata cū reliquis Ap. pallida Bl. & Spiculaea Rf. sunt minores, sed multiflorae, labelli laciniā anticā gerunt trifidā, illa petala obtusa, haec acuminata habet. - Ap. Horsfieldii Bl. merū est enigma cū ne labellū quidē fuerit descriptū. „Perigonii phyllis internis externis angustioribus."
Vrydagzynea papuana Rf. l.c. 345. - Erecta, foliorū vagin. caulin. ampl. inflat., petiol. laminarū 1/3 v. 1/4 aequantib., lamin. oblongo-lanceolat. acut., pedunculo a foliis libero brevi, bivaginato, racemo denso subcapitato, bracteis lanceis ovariū subaequantib. v. superantib. Sep. pet. q. ratione affiniū specierū abbreviat. Labelli lacin. lateralib. angulat. lacinia mediana calceolari obtusa, calcari cylindraceo compresso subdidymo, ovariū non s. vix ultra dimidiū aequante, pedicell. internis filiformib. deflex. apice capitat. in medio calcari 2.

<u>Neolauchea pulchella</u> Kränzl. Herb. Boiss. VI(1897)110.

Sepalo dorsali petq. paulo minorib. liber. Sep. later. antice liber. a medio basin usq. inter se & c. ovario pseudocalcar amplū formantib. Lab. c. marginib. gynostemii infra dilatat. coalito & pseudocalcaris margini superiori affixo, lob. lateralib. minut. auriculiformib. lobo intermedio maximo. Gynostemio brevi non in pedē producto antice marginato, pollin. 8, anthera plana imperfecte 8-loculari, fovea stigmatica magna oblonga, orificiū pseudocalcaris inter lobulos labelli amplū. – Rhizoma repens, pseudobulbi monophylli, inflorescentia terminalis.

Pseudobulbi ovati rugosi 1cm alti, basi 5–6 mm crassi Foliū 1 anguste-lineare, canaliculatū ad 10cm lg. vix 1.5 mm lt. Pedunc. terminalis filiformis, cataphyll. acutissimis 3 in basi, ceterū nudus, monanthus, foliū non aequans, bractea obtecta acuta parva quā ovariū pedicellatū bene brevior. Sep. dors. lanceolat. cucullat. acuminat. Pet. longiora lanceolata, acuminata, velutino papillosa sepalor. lateral. pars libera triangula, parte coalita obtusa ½ fere ovarii ecuati aequante, Labelli lobi later. minuti,

rotundati auriculiform; lob. intermed. maximus rhombeus apice complicatus sepalis aequilongus, discus inter lobulos incrassatus minute papillosus. Gynostem. satis crass. basin versus late marginatus, supra utrinq. acutangulus, anthera plana, poll. 8 complicata, foliis sat longis tenacib. conjuncta. Fl. pulchre purpurei c. 1cm longi. — Heimat mir damals unbekannt.

Gehört zu den Laelieae Ponereae cf. Pfitz. Pfl. Fam. II. 6. 140 neben Coelia. — „Dagegen weisen die Eigentümlichkeiten d. Blüte besonders die Functionsverhältnisse sie zwischen Octadesmia (Blt.stand auf d. laubblatt-tragenden (Trieb ohne) Pseudobulbe) u. Coelia, bei welcher eine Knolle vorhanden ist."

<u>Trichocentrum Brandtiae</u> Kränzl. in Bull. Herb. Boiss. V (1897) 109. — Caule brevissimo. Fol. oblongo-lanceolat. ad 7cm long. 1.5–2cm lat. acut. Racemis 1-flor. bractea minutissima. Sep. cuneato-obovat. carinat. apiculat. Pet. subsimilib. apice obtus. aequilong. Labello ab ipsa basi cuneato antice dilatato, spathulato v. subquadrato, margine crenulato, sepala excedente, calcari longissimo tenui ovarium sub-

aequante, apice ipso uncinato, recurvo. Gynostemio brevi utrinq. pone basin in denticulum acutum ~~[illegible]~~ aucto, clinandrii margine trilobo, lobo intermedio reflexo rotundato, lateralibus in lacinias longas fissis, rostello acuto, caudicula obtriangula supra latissima polliniis elongatis. – Flores pallide luteo-albi, labellum basi aureum, antice pallide flavum, in centro macula maxima purpurea decorum striisq. purpureis quibusdam laevibus radiantib. calcar viride gynostemium intense purpureum. Flores 3 cm diam. stellati, calcar 5 cm longum.

Nächstverwandt mit *Tr. ionophthalmum* Rf. hat aber einen viel längeren Sporn, außerdem mehr braun in der Färbung. Ich habe an dieser Stelle vorgeschlagen *Tr. orthoplectrum* & *ionophthalmum* zs. zu ziehen, welche Rf. selbst für sehr nahe verwandt erklärt hat & deren meisten Charaktere mit einander übereinstimmen. Die anzunehmende Art ist alsdann *T. ionophthalmum*, während *orthoplectrum* synonym wird.

Sonderabdruck aus Fedde, Repertorium VIII (1910), p. 545.

Eine neue *Cleisostoma*-Art von den Philippinen.

Von Fr. Kränzlin.

Cleisostoma chrysochilum Kränzl., nov. spec.

Planta parvula. Folia lineari-oblonga, apice inaequaliter-biloba, utrinque obtusa, nervo mediano valde prominente praedita, articulata, ad 13 cm longa, medio 1,5 cm lata, laete viridia. Spica brevis, pauciflora, ad 6 cm longa, rhachis fusco-purpurea, bracteae minutae, triangulae, quam pedicelli multo breviores, ovaria triquetra v. trialata cum pedicellis 7 mm longa, viridi-lutea. Sepala obovato-oblonga, lateralia deflexa, antice rotundata, 5—6 mm longa, 4 mm lata, castaneo-brunnea, extus leviter viridi-suffusa. Petala subaequalia, paulum minora, eodem colore quo sepala. Labelli lobi laterales trianguli, erecti, angulo antico recto, lobus intermedius crassissimus, obovatus, obtusus, brevi-apiculatus, supra excavatus, in margine antico excavationis pilis longis hyalinis barbatus, discus lamella longitudinali percursus, ubique pilosus, lamella longa linearis, sensim angustata, apice reflexa in pariete postico labelli sub gynostemio v. in pede gynostemii, calcar in sacculum obtusum, minutum reductum, totum labellum luteum v. vitellinum, 5 mm longum, 3 mm latum. Gynostemium breve, rostellum antice dilatatum.

Philippinen. (Loher!)

Sehr ausgezeichnet durch die scharf nebeneinandergestellten Kontrastfarben, rotbraun an den Sepalen und Petalen und leuchtend gelb am Labellum. Dies letztere hat einen mittleren Lobus, der fast ebenso dick ist, wie breit. Die Aushöhlung, welche den Discus labelli bildet, eine Bezeichnung, welche hier kaum zutrifft, ist am vorderen Rande mit langen Borsten besetzt, die ganze innere Partie ist fein behaart. Am Fusse der Säule steht eine auffallend lange, schmale, vorn etwas aufgebogene Zunge und unterhalb derselben eine das ganze Labellum bis nach vorn durchziehende longitudinale Erhöhung oder Leiste. Die Säule hat ein vorn stark verbreitetes Rostellum, sonst aber keinerlei abweichende Merkmale. — Zu bemerken wäre, dass die Blüten ungemein rasch verfallen und noch während des Präparierens ihre Farben in ein indifferentes schmutziges Braun ändern. Als nahe verwandte Art gibt es zurzeit höchstens *C. bicolor* Lindl., welches aber abgesehen von den ebenfalls zweifarbigen Blüten in absolut jedem Merkmal von dieser Art hier abweicht und *C. vitellinum* Reichb.

<u>Houlletia Sanderi</u> Rolfe in Gard. Chron. (1910) I 206; Orch. Rev. 1910 p. 118; Bot. Mag. t. 8346.
Pseudobulbi conferti ovoideo-oblongi, sulcati; 5-7 cm longi, circ. 2 cm lati, 1-phylli. Folia breviter petiolata, oblongo-lanceolata, acuta, subplicata, recurva, circ 30 cm lga, 4 cm lta. Scapus erectus 25-30 altus, vaginis lanceolatis acutis obtectus, 2-3-florus, bracteae lanceolatae, breviter acuminatae, nigropunctatae, circ. 1.5 cm longae. Pedicelli 3-4 cm longi. Flores magni, straminei, inversi. Sep. subpatentia, valde concava, posticū late ellipticū, apiculatū, circ. 3 cm longū, lateralia late ovata, apiculata, circ. 3 cm longa. Pet. suborbicularia, subconcava, circ. 3 cm longa. Labellū profunde trilobū, lobi lateral. late falcato-oblongi, apice obtusi v. rotundati ~~obtuse extensi~~ 1.5 cm longi, media (leviter recurvi) transverse carinati, fronte in dente obtuso extensi, mesochilium oblongū, truncatū, 1 cm longū, apice denticulatū, basi cuneatū, submembranaceū. Col. clavata arcuata, circ. 1.8 cm longa. pollinia 2 stipes lineari-oblongus, glandula suborbicularis.

Species H. Lowianae Rchb.f. proxima, sed labelli lobis lateralib. falcato-oblongis et obtusis nec longe acuminatis distincta. — Peru Imp. F. Sander

Bulbophyllum virescens J. J. Smith in Bull. Inst. Buitenzorg VII (1900) 3; Icon. Bogor. II. 99 t. 119 fig. A; Rolfe, Orch. Rev. 1904. 272; Gard. Chron. 1906. II. 261 c. tab; Orchis 1909. 123 fig. 16 & 17. — Bot. Mag. (1910) t. 8327.

Rhizoma repens, validum, vaginis striatis imbricatis obtectum. Pseudobulbi distantes, lineari-oblongi, striati, 10-13 cm longi, 1-phylli, basi vaginis ovatis, striatis obtecti. Fol. petiolata, coriacea, ovato-oblonga, subacuta, 15-20 cm longa, 7-8 cm lata, petioli 2-5 cm longi; scapi subereoti, 16-20 cm longi, apice decurvi, vaginis spathaceis obtecti; bracteae anguste lanceolatae, acuminatissimae, 2-2.5 cm longae, pedicelli 2-2.5 cm longi. Flores umbellati, magni, speciosi, 8-10. Sep. patentia, ovato-lanceolata, caudato-acuminata, 10-12 cm longa, pallide viridia, brunneo-venosa et reticulata. Pet. anguste ovato-lanceolata, caudato-acuminata,

3.5–4 cm longa, pallide viridia, brunneo-venosa. Lab. recurvū, cordato-ovatū, subobtusū, subcarnosū, circ. 2 cm longū, pallide viride, basi purpureū. Columna brevissima, basi in pedē latū producta, dentes oblongi obtusi. — A B. Binnendijkii sm. sepalis petalisq. viridibus immaculatis differt.

Amboina, Mt. Tuna in 800 m ü. d. M. Später auf einer Insel an der Küste von Neu-Guinea entdeckt.

[Warum Herr Rolfe die Pfl. nicht zu ~~Bu~~ Cirrhopetalum rechnet, sagt er nicht.]

Cirrhopetalum biflorum J. J. Smith in Icon. Bogor. II t. 120 fig B.; Bot. Mag (1910) t. 8321. — Bulbophyllū bifl. Teijsm. & Binn. in Nederl. Kruidk. Arch. III (1855) 397; Miq. Fl. Ind. Bat. III. 647; Rchb. f. in Walp. Ann. VI (1861) 262; J. J. Smith. Orch. Java. 469. — Rhizoma repens gracilius. Pseudobulbi aliquotiens distantes, ovato-oblongi, 4-goni, circ. 3–4 cm longi, 1-phylli. Fol. subsessilia, lanceolata v. oblongo-lanceolata, subobtusa, coriacea, basi attenuata, 12–15 cm longa, 2–2.5 cm lata. Scapi graciles, suberecti.

8–10 cm longi, basi vaginis lanceolatis paucis tecti, apice biflori, bracteae ovato-lanceolatae, acuminatae, concavae, circ. 1 cm longae, pedicelli patentes v. decurvi circ. 3 cm longi. Flores magni, speciosi, purpureo-punctati. Sep. posticum elliptico v. lanceolato-oblongum, concavum, longe setiferum; limbus circ. 2 cm longus (soll wohl heissen lamina?) seta 1 cm longa saepe incurva sep. lateralia lineari-lanceolata, longissime attenuata, 8–9 cm longa decurva. Pet. oblongo-lanceolata, brevissime tridentata, eciliata, circ. 6 mm longa, dente medio interdum setifero. Lab. recurvum, ovato-oblongum, obtusum, carnosum, eciliatum, circ. 8 mm longum. Col. brevis, lata, edentata, basi in pedem attenuatum incurvum producta. — Java.

Cymbidium insigne Rolfe in Gard. Chron. 1904 I. 387; Orch. Rev. 1904. 230; 1906, 175; Rev. Hort. 1907, 495 fig. 166 & ic. color. Le Jardin 1907, 300 fig. 170; Rev. Hort. Belge 1907, 53 ic. color.; Dict. Icon. Orch. Cymb. t. 1; Bot. Mag. 1910 t. 8312. — Cymbid. Sanderi hort Sand. ex Gard. Chron.

1905 I. 168. 115 fig 49; Garden 1905 Bd 68, 1 t. 1277.
Pseudobulbi ovoidei; 6–7 cm longi. Fol. elongata, lineari-oblonga, acuta, subcoriacea, 50 cm – 1 m longa, 1.3–1.5 cm lata, basi latiora, conduplicata. Scapi suberecti 75 cm – 1.25 m longi, vaginis lanceolatis acutis obtecti; racemi multiflori, bracteae ovatae acutae, 5 mm longae; pedicelli 5–6 cm longi. Flores speciosi. Sep. & pet. patentia, subaequalia, elliptico-oblonga, subacuta, dilute rosea, 4–5 cm longa, apice subrecurva. Lab. suborbiculare, trilobum, 3.5–4 cm longū, dilute roseū, purpureo-maculatū, lobis lateralib. erectis subincurvis apice rotundatis; lobo intermedio suborbiculari, obtuso v. emarginato, disco villoso & callis 2 velutinis luteis a basi fere ad apicē instructo. Col. clavata, incurva, 2.5 cm longa. – Annam.

Affine C. grandifloro Griff. sed floribus minoribus dilute roseis & labello suborbiculari distinctum.

<u>Notylia trisepala</u> Lindl. in Paxt. Fl. Gard. III (1852-3) 45; Reichb. f. in Walp. Ann. VI (1861) 675 & Hem. I. 49; Bot. Mag. (1910) t. 8306.
Pseudobulbi oblongi, subcompressi, vix 1 cm longi, vaginis conduplicatis oblongis acutis imbricatis obtecti, 1-phylli. Fol. oblonga, subobtusa, coriacea, 4-8 cm longa, 1.5-3 cm lata. Scapi penduli, 7-16 cm longi, vaginis lanceolatis obtecti, racemi cylindrici, multiflori, bracteae oblongo-lanceolatae, acutae, 1-1.5 mm longae, pedicelli 3-6 mm longi. Flores pallide virides. Sep. posticū, erectū, ovato-oblongū, acutū, 3-4 mm longū, sep. lateralia libera v. sublibera, incurva, oblonga, subacuta, 4-5 mm longa. Pet. suberecta incurva, ovato-oblonga, subacuta, 3-4 mm longa. Lab. suberectū, breviter unguiculatū, trulliformi-ovatū, subobtusū, 3-4 mm longū, basi obtuse carinatū. Col. clavata, 2-3 mm longa, anthera ovata, pollinia 2 ovoidea, ad apicē stipitis longi tenuis affixa, glandula parva. — Mexico: l. Vera Cruz.

85. 229.

Gard. Chron. 1910 II 2/3 Gard. Chron. 1910 II 229.

NEW OR NOTEWORTHY PLANTS.

SOBRALIA BLANDA, Kranzl. n.sp.*

This new species of Sobralia flowered in the collection of Mr. Paul Wolter, Magdeburg, Wilhelmstadt, who informed me that he received it from England as a hybrid of doubtful parentage. After a careful examination, I found that the plant resembles, in nearly all characters, the true species, S. Lindleyana, Reichb. A notable difference, however, consists in the scales or bracts of the flowers, which are short in S. Lindleyana but long and herbaceous (like S. macrantha) in S. blanda. The leaves of S. Lindleyana are said to be short and stiff, in S. blanda they are large and well developed. The flowers resemble those of S. Liliastrum and S. Lindleyana, especially in the white sepals and petals and the golden-yellow centre of the disc. The lines of the latter are a little higher than the surrounding area, but there is no proper cresting. The "rose-coloured dots," quoted by Reichenbach in the description of his S. Lindleyana are wanting. At first, I had some idea that it was an albino of some purplish-flowering species, but then the question arose—what species? The number of Sobralias with cone-like inflorescences, herbaceous, glabrous bracts, large, broad leaves and glabrous, unspotted sheaths and a lip without a crest is small, and among these species there is none similar to this new one. As the plant was said to be a hybrid, I looked in the *Orchid Stud Book*, and found nothing similar to it, the three hybrid Sobralias quoted in this work being totally different plants. The conclusion is, that we have to deal with a very pretty new species in the way of S. Liliastrum and S. Lindleyanum (both species rather rare in collections), but belonging nearer to the macrantha group of Sobralia. It is a plant of medium size for a Sobralia, bears bright green, rather large leaves, and produces at intervals the clear white flowers which are of 15 c.m. diameter, when fully developed. The lip is also white, except the throat and the middle part of the disc, these parts being golden-yellow. The flowers last in perfection for one day or perhaps a little longer. Nothing is known as to its habitat. *F. Kranzlin.*

* Sobralia blanda, Kranzl., n.sp.—Caules stricti, ad 50 cm. alti., glaberrimi, foliosi. Foliorum vaginæ glabræ, estriatæ, 4-5 cm. longæ, excepto folio supremo subflorali, cujus vagina ampliata, laminæ sessiles oblongæ, acuminatæ, 7-nerviæ, coriaceæ, 15-18 cm. longæ, ad 6 cm. latæ, suprema 9 cm. longa, 3 cm. lata. Flores solitarii, succedanei ex vaginis foliaceis, viridibus, albo-marginatis glabris orientes. Flores candidi, labellum medio in disco aureum. Sepala lanceolata, 8 cm. longa, medio 1·8 cm. lata. Petala teneriora, oblongo-lanceolata, 7 cm. longa, medio 2·2 cm. lata. Labellum e basi cuneata valde dilatatum, trilobum, lobi laterales rotundati, lobus intermedius subquadratus, profunde bilobulus, margo totius labelli a dimidio undulatus, præsertim in lobo intermedio, discus lineis 5 elevatis rectis non proprie "cristatis" e basi medium usque decurrentibus percursus, labellum 7 cm. longum, quo latissimum 4-5 m. latum, discus glaber, bevissime velutinus (nee papillosus nec pilosus) Gynostemium breve, stelidia uncata, retrorsa.

* Mormodes Wolteriana, Kranzl, n. sp.—Racemus ad 10-florus, 12 cm. longus, rhachis viridis, bracteæ parvæ, triangulæ, teneræ, fere 1 cm. longæ; pedicelli ovariaque virides, ad 4 cm. longi, ovaria 6 sulcata. Sepala petalaque paululum longiora, ovato-lanceolata, acuminata, margine revoluta, 3·3 v. 3·5 cm. longa, sepala basi 1 cm., petala 8 mm. lata, omnia unicoloria aurantiaco-brunnea, extus pallidiora. Labellum toto ambitu e basi cuneata v. brevi-unguiculata rhombeum, sub anthesi involutum, trilobum, lobi laterales quam intermedius breviores, trianguli, acuti, v. intermedius acuminatus, discus medio obtuse carinatus, sparsissime pilosus; labellum florum inferiorum (6) ad 3 cm. longum, inter lobos laterales 2 cm. latum, satis firmum eodem colore quo sepala petalaque, illud florum superiorum 1·8 cm. longum, vix 1·5 cm. latum, vitellinum, magis curvatum, multoque tenerius, gynostemium plerumque sinistrorsum curvatum, dense velutinum. Flores inodori. Peruvia.—Imp. P. Wolter, Magdeburg. *Fr. Kranzlin.*

† Catasetum tenebrosum, Kranzl., n. sp.—Racemus strictus pauciflorus (in specimine meo 6-florus). Rhachis viridis, sordide purpurea, bracteae parvæ, ovatæ, acutæ, virides, 1 cm. longæ, ovaria cum pedicellis multo longiora, 2. 5-3 cm. longa, atro-purpurea. Flores ringentes, patentissimi, sepala latissime oblonga, acuta, concava. Petala elliptica paulum angustiora, plana, apice subreflexa, omnia 2·5 cm. longa, 1·5 cm. lata, petala 1·2 cm. lata, adeo fusca, quod primo aspectu atra appareant. Labellum planum, toto ambitu cordatum, viride, apice crasso carnoso, obtusissimo calloso, basi callo transverso plano atroque callo luteo instructum, margine præsertim basin versus minute denticulatum, 2 cm. longum & basin versus 2·2 cm. latum, discus labellimedio leviter excavatus. Cirrhrgynostemii perbreves, filiformes, antice convergentes, ut sese tangant (est enim planta pollinifera). Flores 4 ad 4·5 cm. diam. Floret in Europa aestate. Peruvia—Imp. P. Wolter, Magdeburg. *Fr. Kranzlin.*

MORMODES WOLTERIANA AND CATASETUM TENEBROSUM.

These are two new species of the group of Orchids, called appropriately by Reichenbach by the name Eborilingues or ivory-lipped Orchids, from Peruvia, which have flowered with Mr. P. Wolter, Magdeburg, the introducer. In habit of growth neither species has any particular features to distinguish it, but the flowers of one of the species are different from all the allied species, whilst those of the other are amongst the most striking flowers in the vast family of Orchids.

Mormodes Wolteriana* resembles, at first sight, the well-known and rather polymorphous Mormodes buccinator, but differs therefrom in that, firstly, the lip is three lobed like that of M. pardina, quite a different species, and, secondly, the lip of the lower flower of the spike is nearly twice as large as in the upper flowers. The colour is somewhat similar to that of M. buccinator var. aurantiaca; the lip is hairy inside, and parts of the column are also hairy. The sepals and petals are spreading and more in the way of M. buccinator, not curved inwards like those of M. pardina. The inflorescence bore six flowers.

All diese Blütenpracht umwob ein echter Sommertag. Tiefblauer Himmel mit weißen Wolken malerisch umzogen. Nur ein leises Lüftchen regte sich, und fast nichts deutete darauf hin, daß wir in die Regenzeit eingetreten waren.

Es war ein Tag, dessen Schönheiten hier im Hochgebirge man tief auskosten mußte.

Allein meine Stimmung war eine etwas gedrückte. Die Folgen des Genusses von schlechtem Wasser — woran wir hier oft leiden — trübten schon seit Tagen meine Reisefröhlichkeit und hinderten mich vor allem, alle Gelegenheiten zum Photographieren auszunutzen. Bilder für die Camera gab's so viele, aber jedes will in seiner Art gesehen und abgestimmt sein. Dazu gehört vor allem gute Stimmung, die ein schnelles, fröhliches Arbeiten erlaubt.

einem Exemplar auftraten, eine gewisse Permanenz zu haben scheinen. Wir haben es wahrscheinlich mit einer Lokalvarietät zu tun. Die Abweichungen von *Od. grande typicum* sind folgende: 1. Die bei der typischen Form braunen Flecke der Sepalen und Petalen haben hier einen stark ins Violette übergehenden Ton. 2. Das Labellum, welches sonst flach ausgebreitet ist, ist hier schüsselförmig vertieft mit deutlich eingekratztem Rande, seine Färbung ist hellrosa mit dunkleren rosaroten Flecken, die ähnlich gruppiert sind, also bei der Stammart. 3. Während die Abmessungen der Sepalen und Petalen bei der Varietät denen der Stammart ganz oder nahezu gleich sind, ist das Labellum viel kleiner; es mißt bei der typischen Form 3·5 cm in der Länge zu 4 cm in der Breite, bei der Varietät 2 cm zu 2 cm, mit deutlich ab-

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So konnte ich nur weniges im Fluge festhalten. Der Tagesmarsch war auch sehr lang und wir mußten unsere 1500 m wieder hinab, ins Flußthal, wo wir um 6 Uhr abends in strömenden Gewitterregen den Fluß übersetzten und müde die sehr primitive Raststätte in Wo lo ho erreichten, unfähig am Abend noch alle Beute dem Papier anzuvertrauen. Ich hatte 57 neue Nummern Herbar.

Diese Zeilen schreibe ich an einem Regentage im Mosoorte Tscho so, am See von Yungning, am 16. Juni 1914.

Odontoglossum grande Lindl. var. Wolterianum nov. var. Kränzl.

Die Blüten dieser neuen Varietät gleichen denen der typischen Form im allgemeinen Bau und auch in der Verteilung der Farben, weisen aber durch verschiedene Merkmale ab, welche, da sie gleichzeitig an mehr als einem Exemplar auftraten, eine gewisse Permanenz zu haben scheinen. Wir haben es wahrscheinlich mit einer Lokalvarietät zu tun. Die Abweichungen von *Od. grande typicum* sind folgende: 1. Die bei der typischen Form braunen Flecke der Sepalen und Petalen haben hier einen stark ins Violette übergehenden Ton. 2. Das Labellum, welches sonst flach ausgebreitet ist, ist hier schüsselförmig vertieft mit deutlich eingekratztem Rande, seine Färbung ist hellrosa mit dunkleren rosaroten Flecken, die ähnlich gruppiert sind, also bei der Stammart. 3. Während die Abmessungen der Sepalen und Petalen bei der Varietät denen der Stammart ganz oder nahezu gleich sind, ist das Labellum viel kleiner; es mißt bei der typischen Form 3·5 cm in der Länge zu 4 cm in der Breite, bei der Varietät 2 cm zu 2 cm, mit deutlich abgerundeter Basis und sehr kurzem „Nagel". 4. Das keulenförmige Callus auf dem Baralteil des Labellums zeigt hier zwei ganz kurze hornähnliche Vorsprünge; bei der Stammart sind sie lang. 5. Die Säule ist sehr schlank, viel dünner als bei der typischen Form und hat kaum angedeutete „Flügel".

Die Aufzählung der Abweichungen ist lang und es läßt sich die Frage aufwerfen, ob es sich hier nicht um eine ebenso gute Art handle wie *Odontogl. Jnsleayi* Lindl., welche bekanntlich *Od. grande* zunächst steht. Ich habe mich dennoch zunächst dafür entschieden, aus der Pflanze eine Varietät von *Od. grande* zu machen, hauptsächlich weil der ganze Eindruck dieser Art ist. An eine Bildungshemmung zu denken, möchte ich von vornherein ablehnen, da diese nicht gleich an verschiedenen Exemplaren aufzutreten pflegt und da die

Blüten sonst absolut nicht dürftig ausgestaltet sind. Bei der Wichtigkeit des Labellums für die Artabgrenzung möchte ich hier doch den Standpunkt vertreten, daß so hoch er immer eingeschätzt werden mag, wir uns doch hüten müssen, ein unabänderliches Schema für die Form zu fordern. Wer Gelegenheit gehabt hat, Tausende von *Od. crispum* Lindl. gleichzeitig in Blüte zu sehen, ein Anblick der mir bei meinen früheren Besuchen in England mehr als nur einmal wurde, der wird gesehen haben, daß auch bei dieser gut fixierten Art (ganz abgesehen von der unendlichen Variabilität der Farbe) die Umrißverhältnisse der Lippe sich innerhalb gewisser Grenzen bewegen und nicht nur die Labellen variieren, sondern auch die „Kämme" auf ihrer Oberfläche. Es sind bisweilen Formen darunter, welche an die von *Od. Peccatorei* erinnern, denen man aber keinenfalls den Rang einer Art zubilligen darf. Dies auf den vorliegenden Fall angewendet, hat mich veranlaßt, die Varietät aufzustellen, denn das Labellum zeigt wenigstens noch die allgemeinen Umrißformen dessen von *Od. grande*, während bekanntlich bei *Od. Jnsleayi* Lindl. eine völlig neue Form, die eines dreieckigen Spatens, auftritt. Und was von diesen gilt, trifft auch zu für die Staminodialanhänge der Säule, die sogenannten „Alae". Gerade bei diesen Anhängseln, die wir morphologisch als rudimentäre Staubgefäße anzusehen haben, ist es relativ häufig, daß sie eine weitergehende Rückbildung erfahren. Ich habe deshalb auch dieses Merkmal hier nicht als Artcharakter eingeschätzt. Dasselbe gilt von dem Callus auf der Lippe, welcher bei dem typischen *Od. grande* ein tief zweiteiliges Gebilde ist, hier aber nur eine schwach angedeutete Zweiteilung zeigt. Gewisse Beobachtungen an anderen Orchidaceen machen es zum mindesten wahrscheinlich, daß wir es hier mit den Überresten des sechsten Staubgefäßes der Orchidaceenblüte zu tun haben, einem noch stärker zurückgebildeten Organ, welches bei vielen Arten ganz und gar verschwunden ist. Man soll mit der Bewertung solcher Organe vorsichtig sein.

Das hier Gesagte gilt hauptsächlich für *Odontoglossum*, bei *Oncidium* liegen die Dinge einfacher. Fälle, wie die Schwankungen in den Größenverhältnissen des Labellums, wie z. B. bei *Onc. varicosum* Lindl. var. *Rogersii* Rchb. f. vorkommen, gehören in dieser Gattung zu den Ausnahmen und dasselbe gilt von Farbenvariationen, wie sie sich bei *Onc. carthaginense* Sw. (um sie mit ihrem ältesten Namen zu nennen) finden. Es kann auch bei dieser Gattung Abweichungen von einem bestimmten Typus geben und man kann nicht beanspruchen, daß die Protuberanzen auf dem Labellum stets dieselben Zwischenräume unter sich innehalten und genau dieselbe Größe zeigen, aber doch waltet hier eine größere Permanenz der Merkmale.

Ich erhielt die Pflanze von Herrn P. Wolter, Magdeburg-Wilhelmstadt, bei welchem mehrere Exemplare gleichzeitig blühten, und zwar gleichzeitig mit typischen *Od. grande.* Falls die weiteren Kulturversuche dieses Herrn so gut gelingen wie einige frühere, so hoffe ich in dieser Zeitschrift über neue interessante *Stanhopea*-Kreuzungen berichten zu können; über die früheren habe ich in Gardeners Chronicle mehrfach kleine Artikel veröffentlicht.

Dr. Fr. Kränzlin.

All diese Blütenpracht umwob ein echter Sommertag. Tiefblauer Himmel mit weißen Wolken malerisch umzogen. Nur ein leises Lüftchen regte sich, und fast nichts deutete darauf hin, daß wir in die Regenzeit eingetreten waren.

Es war ein Tag, dessen Schönheiten hier im Hochgebirge man tief auskosten mußte.

Allein meine Stimmung war eine etwas gedrückte. Die Folgen des Genusses von schlechtem Wasser — woran wir hier oft leiden — trübten schon seit Tagen meine Reisefröhlichkeit und hinderten mich vor allem, alle Gelegenheiten zum Photographieren auszunutzen. Bilder für die Camera gab's so viele, aber jedes will in seiner Art gesehen und abgestimmt sein. Dazu gehört vor allem gute Stimmung, die ein schnelles, fröhliches Arbeiten erlaubt.

einem Exemplar auftraten, eine gewisse Permanenz zu haben scheinen. Wir haben es wahrscheinlich mit einer Lokalvarietät zu tun. Die Abweichungen von *Od. grande typicum* sind folgende: 1. Die bei der typischen Form braunen Flecke der Sepalen und Petalen haben hier einen stark ins Violette übergehenden Ton. 2. Das Labellum, welches sonst flach ausgebreitet ist, ist hier schüsselförmig vertieft mit deutlich eingekratztem Rande, seine Färbung ist hellrosa mit dunkleren rosaroten Flecken, die ähnlich gruppiert sind, also bei der Stammart. 3. Während die Abmessungen der Sepalen und Petalen bei der Varietät denen der Stammart ganz oder nahezu gleich sind, ist das Labellum viel kleiner; es mißt bei der typischen Form 3·5 cm in der Länge zu 4 cm in der Breite, bei der Varietät 2 cm zu 2 cm, mit deutlich ab-

The flowers of Catasetum tenebrosum†, as I have called it, seem, at first sight, black with a greenish-yellow lip. Neither in Cœlogyne pandurata and its allies, nor in any other Orchid is the colour so nearly black. As seen through a lens, it is very deep purple-brown. The sepals and petals are nearly of the same size; they are oblong, shortly pointed, and slightly hollowed. Each is about 1 inch long, and a little more than ½ inch broad. The triangular lip also is flat, with a cordate base just below the column, and a little above the blunt apex there are two small callosities; the disc is slightly hollowed, and the border minutely denticulate. A very striking character of botanical value is the shortness of the two bristles of the column, scarcely exceeding one line in length, and so converging that they seem coherent at the ends. The plant is polliniferous, and the pollinia are thrown from the anther-bed at the slightest touch of the bristles. *Fr. Kranzlin.*

<u>Calanthe megalopha</u> Franch. in Nouv. Arch. Mus. d'hist. nat. 2 sér. X (1887-8) 85.

Terrestris, fol. saepius 5, glaberrima, late oblonga, breviter acuminata. Pedunculus puberulus, foliis 2plo longior, remote squamatus, squamis membranaceis e basi ovata in acumen herbaceũ attenuat., bracteae ovario 4-plo breviores, flores laxe spicati, sep. ovato-lanceolata, breviter acuta extus parce et tenuissime puberula. Pet. oblongo-linearia sepal. subaequilonga, erecta. Lab. ecalcaratũ plicâ vix conspicua tantum auctũ, 3lobũ, lob. lateralib. obovat. induplicat. intermedio 2plo majore, transverse rhomboideo,

antico leviter emarginato, margine erosulo, ad discu latu aliz 3 elevat. integr. oblique. acutu, ovariu tenuiter tomentellu. — Fol. 5-7 poll. lga, 1-1½ poll lt. pedunculus paulo ultrapedal. flores diam. vix 2cm. — Julio.

Moupine, ad rupes adumbratas. (David)

Le C. megalopha a des rapports surtout avec le C. tricarinata, il en diffère par ses feuilles plus larges & par son labelle dont les 2 lobes latéraux sont obovales presque orbiculaires, repliés par la moitié; le lobe intermédiaire est au moins 3 fois plus grand, rétréci au point, où il devient libre de la colonne beaucoup plus large que long, émarginé en avant & un peu érodé sur les bords; le disque est relevé de 3 hautes lamelles minces, entières, placées obliquement.

Calanthe Davidi Franchet l. c. (1887-8) 85.

Terrestris. Fol. plura, lanceolato-linearia, firma, glabra acuta, pedunculus tenuiter pubescens folia

superans. Racemus elongatus, multiflorus, bracteae lanceolato-lineares, inferiores flore superantes, superiores illum subaequantes, patentes v. reflexae. Flores parvi, glabri, sep. & pet. aequilonga, sep. late oblong., pet. fere duplo angustiorib., calcar arcuatum ovarium subaequans. Lab. 3lobum, lob. lateralib. oblique obovat., intermedio paulo majore bilobulo, lobul. ovat. divaricat., discus antice 3lobus c. totidem lamell. brevib. verruciformib. ante lobum intermedium desinentib., ovarium tenuiter puberulum. — Fol. 30 - 35 cm lga, 10-15 m lt. pedunculus subbipedalis, racemo circ. 20 cm; flores 20-35, 15 m diam. calcar 5-6 m. — Fl. Julio.

Moupine in silvis (David)

Espèce bien caractérisée par ses feuilles étroites & allongées & par ses petites fleurs. La forme du labelle ne permet de la confondre avec le C. tricarinata & la rapproche davantage des C. parviflora Ldl. & C. uncata Ldl.; elle a l'éperon arqué de ce dernier.

89.

Calanthe fimbriata Franchet l.c. (1887-8) 86.

Terrestris. Fol. glabra, oblongo-ovata, breviter acuminata. pedunculus tenuissime pubescens, folia param superans, nudus. Flores pauci (ex speciminiae unico viso tantū 2) rubescentes, bracteae anguste lanceolatae acuminatae ovario breviores; Sep. & pet. (paulo angustiora) subaequilonga, lanceolata, longe acuminata e basi libera e. labello erecto campanulata. Lab. in calcar longū leviter curvatū cylindricū desinens, ungue e. columna ad apicē usq. coadunato tubū latū efficiente, lamina porrecta integra antice eroso fimbriata, rotundata, ovariū glabrū. — Fol. 5-7 poll. lg. 1-1½ poll lt. pedunculus subpedalis, perianthiū circit. 2cm lg. neglecto calcare fere 3cm aequans.

Moupine, in umbros. regionis montanae (David) K. Angustif.

Ce n'est pas sans quelque hesitation que je rapporte la plante décrite ici au genre Calanthe, la végétation & les feuilles semblent bien indiquer ce rapprochement, mais la fleur affecte une forme qui ne se

retrouve, je crois, dans aucune autre espèce de ce genre. Les pétales & le labelle sont en effet tous dressés campanulés comme on le voit dans le genre *Cremastra* par exemple; l'onglet du labelle est complètement adné jusqu'au sommet de la colonne & forme avec elle un entonnoir profonde d'où se dégage le limbe qui au lieu d'être étalé comme chez les autres *Calanthe* est dirigé en avant, concave caréné, fimbrié-lacinié antérieurement, sans trace de lobes latéraux; par la disposition du labelle les fleurs de *C. fimbriata* rappellent assez bien celles d'un *Pleione*. L'éperon est très-long, cylindrique, obtus, droit.

Telipogon Hausmannianus Rchb. f. in Bonplandia IX (1861) 213. — Aff. *T. latifolia* H. B. K. Labello obovato apiculato sine nervulis lateralib. tepalorum nervis utrinq. juxta nervum medium 6. — *T. latifolius* Ldl. Orch. Lind. 23.

Radices adventitiae amplocylindraceae, flexuosae, tegumentis a stratis cellularib. longe distantib. Folia

cuneato-lanceolata, apiculata usq. 3 poll. longa, 1/2 poll. lata; nervo medio infra carinato. Pedunculus propè spithameus, deorsū compressus, sursū anceps, flexuosus pluriflorus. Bracteae triangulae acutae dorso auripiles pedicellos ovariorū tripterorū subaequantes. Tepala triangula acuminata basi naviculari excavata. Tepala transversa c. apiculis labello subaequalia.

Wälder von Quindiu. Prov. Cauca. 9840' ü. d. M. „Los Volcanitos". Febr. 1843 (Linden N. 1285)

T. latifolius H. B. K. ist verschieden „labello acuminato" & durch mehrere andre Merkmale. Hartwegs T. latifolius Ldl. (T. Hartwegii Rf.) hat „tepala nervis utrinq. 3 & steht dem T. Hausmannianus viel näher als dem T. latifolius.

Eine der stattlichsten Hochgebirgsorchideen. Die schönen gelben Blüten haben einen Durchmesser bis 2 1/2 Zoll. (Baron von Hausmann in Botzen gewidmet.)

Cleisostoma subviolaceum Rchb. f. in Bonplandia X (1862) 335. — Pedunculo fractiflexo, paucifloro, parvifloro, bract. navicularib. ovariis pedicellat. brevioribus. Labelli auricul. triangul. apice inflex. retusis, lamina ovali apiculata, lineis 2 confluentib. a basi in discū, inter se velutin., dente lineari subulato, antice sulcato sub fovea elongato, androclinio obliquo apice in rostellū prono. — Philippinen - Collect.?

Luisia valida Rchb. f. in Bonpl. X (1862) 335. — Tepalis oblongo-ligulat. sepala paulo excedentib., labello bene ventricoso, trifido, laciniis postic. triangul. erect. juxta columnā, lacinia antica hastato-triangula excavata. Fol. valida. — Philippinen (Lobb?)

93. Presl. Reliquiae Haenkeanae I p. 93. (1830)

Cyclopogon ovalifolium Presl. l.c.

<u>Spiranthes Preslii Lindl. gen. & sp. 470.</u>

Radix fasciculata tuberosa, quasi [illegible]. Fol. petiol. ovato-elliptica, glabra, nervosa, 2" long. 1" lat. Scap. erect. vaginis membranac. acumin. spars. vestit. superne pubesc. Spic. linear. oblonga 2" longa densiflora pubescente. Bract. lanc. acumin. membran. 1" lg. ovario longior. Flor. pedic. [illegible] ovario [illegible]. Sepal. super. oblong. [illegible] basi angustior. apice paulo dilatat. & denticulat. [illegible] sep. 2 ornata [illegible]. Sep. inferior. linear. oblonga. Labell. longitudine sepalor. patens glabr. panduriforme nempe basi & prope apicem angustat. medio latum concav. apice in laminam planam spathulato-[illegible] dilatatam. Process. in basi labelli bis oblong. hyalin. labello fere 2plo brevior, 3 lobus, lobis lateralib. obcord. rotundat. medio elongato lineari [illegible] plano. Gynostem. labello brevius, stipitat. [illegible] in membranam acuminat. product. Anthera linearis. Ovarium oblong. glabrum.

[illegible] montanis [illegible]. [illegible] Haenke.

This plant is very like Neottia minor and probably possesses no mark of distinction from Spiranthes. The 3 lobed process said to exist at the base of the lip, is I fear only the column imperfectly seen. Lindl. l.c.

Orchis monophylla Hook. f. in Bot. Mag. (1898) t. 7601, Habenaria monophylla Collett & Hemsl. in Journ. Linn. Soc. XXVIII (1890) 134; Hook. Fl. Br. Ind. VI. 143. — Caule infra folio brevi robusto. Fol. 1 v. 2 subradicalib. oblong. ovato-oblongisve subacut. basi vaginantib. carnosul. lucide viridib., macul. rubro-purpureis creberrime aspersis, pedunculo vagin. bract. q. viridib. punct. purpureis elongat. striatis, vagin. pauc. lanceolat. erect., racemo 2½ pollicari, laxe multifloro puberulo, bracteis lanceolat. ovario aequilong. brevioribusve, Sep. conniventib. parv. viridib., dorsali ¼ poll. longo oblongo obtuso, lateralib. majorib. late ovat. obtus. Pet. obovato-oblong. incurv. convolut. roseis, Lab. latiore quā lgo, sepalis 2plo longiore 3lobo, pallide roseo, lob. subaequilong. lateralib. patul. truncat. crenulat. immaculat. intermedio quadrato discoq. labelli pustul. roseis asperso, calcari ovario breviore obtuso incurvo, staminodiis magnis polliniorū glandul. saccul. distinct. absconditis.

95.

Tubers oblong!!!

Upper Burmah – Shan hills 4000' (Collett!)

ZYGOPETALUM CHLORANTHUM (KRÂNZL.), N. SP.

I RECEIVED this plant from Baron Max von Fuerstenberg, Hugenpoet, near Essen, who informed me that he purchased it in England under the name or among a lot of Paphinia cristata, a species which it much resembles in habit. The flower-spike is rather weak, the bracts are comparatively large, and embrace the lower half of the pedicel with the ovary. The flowers are not even medium-sized for a Zygopetalum; they are greenish in colour, and unattractive, but they have two characters which are rather uncommon for a Zygopetalum. Firstly, the flowers are hairy inside, just as is found in a certain group of green-flowering Lycastes; secondly, they have a very agreeable smell, rather difficult to describe, which seemed to me somewhat reminiscent of that of Stanhopeas, but reduced to an agreeable perfume. The lip shows exactly the form (much reduced in size) of Z. maxillare; the teeth, seven to eight in number, are white, contrasting to the greenish-white ground colour of the lip.

This plant is allied to Z. Murrayanum (Gardn.), a half-forgotten species, described and figured 71 years ago in the *Bot. Mag.* (t. 3674), and mentioned by Mr. Rolfe in this journal (1888 II.), and in the *Flora Braziliana II.*, 575. Our plant is smaller in every part, and without any trace of red on the lip and column, but, except for these differences, it is certainly a very similar plant, so that now we have a little group of two species. Therefore, I cannot but declare Z. Binotii (de Wildem.) synonymous with Z. Murrayanum (Gardner). The descriptions, for instance, in *Flora Brazil. II.*, 575, and *III.*, 575, were practically identical, and there are no discrepancies of any systematic value, neither in form nor in dimensions, between the old and the new species. Mons. de Wildeman considered his plant to be a hybrid between Zygopetalum and Colax, or perhaps other plants. I regret that I must decline to follow this gentleman in this direction. On account of its hairiness inside, I regard my new species as a hybrid between a Zygopetalum and a Lycaste, and, because of its peculiar perfume, I consider it to be derived also from a Stanhopea. Z. Binotii is said to be found near Theresopilis, in the province of Rio de Janeiro, but it is not very probable that a botanist like the late Dr. Glazion, who knew every spot of this province, and who was a very experienced connoisseur of Orchids, would have overlooked a plant of such size as an ordinary species of Zygopetalum. *Fr. Krânzlin.*

* ZYGOPET...UM CHLORANTHUM (*Krânzl.*), n. sp.—Planta habitu et magnitudine *Paphiniæ cristatæ*, quacum introducta est. Racemus laxus, pauciflorus, ad 10 cm. longus; bracteæ late obovatæ, antice retusæ, apiculatæ, in ochream convolutæ, virides, ovario cum pedicello exacte et longitudine et latitudine aequantes. Sepalum dorsale concavum, late ellipticum, obtusum, sepala lateralia oblonga, angustiora, longiora, acutiora, omnia 1.2 cm. longa, dorsale 8 mm., lateralia 6 mm. lata. Petala ligulata, basi lata pone labellum inserta, obtusa, 1·1 cm. longa, 5-6 mm. lata; hæc omnia intus sparse longeque albo-pilosa, ceterum viridia. Labellum albidum, lobis lateralibus erectis, subrhombeis, truncatis; lobus intermedius latissime obovatus, obtusissime acutatus, deflexus, callus maxillæformis inter lobos laterales transversus, albus, 7-8 dentatus, satis prominens; totum labellum 1·2 cm. longum, antice 8-9 mm. latum. Gynostemium latum, paulum curvatum, album, 5-6 mm. longum; anthera acuta. Flores, pro Zygopetalo inamœni, odorem suavem illi Stanhopearum similem, haud tamen ita gravem exhalantes.

Reprinted from the *Gardeners' Chronicle*, Mar. 12, 1910.

Orchis satyrioides Steven. in Mém. d. l. Soc. Imp. Naturalistes de Moscou II (1809) 176 fig. 6 *)

*) "Planta valde singularis & icon configuratione florum notatu dignissima, cum laciniis floris 3 exterioribus omnino in unicā conferruminatis, typū peculiaris generis forsan exhibeat."

Labello 3lobo, lacinia media elongata obtusa, perianthii foliolis exterioribus connatis, interioribus filiformibus, cornu obtuso scrotiformi, bracteis brevissimis. — Caulis fere pedalis, teres, striatus, glaber. Folia pauca, infimū radicale ellipticū, palmare obtusū, caulina 2 longe vaginantia acuta, squamaeformia. Racemus spiralis bifarialis, 20-florus, floribus sessilibus distinctis (non arcte imbricatis) magnitudine O. coriophorae. Bracteae brevissimae scariosae, inferiores obtusae, superiores acutae. Perianthiū (5-phyllū). Foliola 3 exteriora in cucullū connata usque ad apicē, ita ut unicū appareat tridentatū, a viridi sordide purpurascentia, 2 interiora inclusa, columnae genitaliū longitudine, filiformia

non nisi remoto oculo conspicua. Labellum pubescens dependens germine brevius, 3lobum, lobis lateralibus lanceolatis obtusis, medio duplo longiore spathulato obtusissimo. Calcar brevissimum obtusum bilobum scrotiforme. Germen spiraliter tortum, teres, striatum, glabrum, semiunciale. Columna styli brevis crassa lineam longa. Anthera terminalis postice columnae adnata bilocularis obtusa. — Fl. Junio.
Habitat in Iberia.
Accedit ad O. viridem florum structura, sed abunde distincta bracteis brevissimis, petalis connatis, interioribus minutissimis & labelli forma, ut caetera taceam."
„Dies die Originaldiagnose von Platanthera satyrioides (Steven.) Rchb. f.

Trichopilia peruviana Kränzl. in Oesterr. Bot. Ztg. X (1915) 11.
[Pilumna]
Pseudobulbi rhizomati brevi insidentes, anguste compressi ancipites, toto ambitu lineares v. lineari-oblongi, ad 10 cm longi, 1.5 ad 2 cm lati, basin versus sensim increscati cataphyllorum rudimentis, pallidis ——

scariosis vestiti, monophylli. Folia e basi rotundata lanceolata, acuta v. acuminata, coriacea, basi brevi-complicata, dorso carinata, laete viridia, subtus paulo pallidiora, ad 15 cm longa, 4 cm lata. Racemus vaginulis brevibus, acutis, brunneis, scariosis vestitus, biflorus (an semper?), certe pauciflorus, bracteae vaginulis consimiles, nigropunctulatae, 1·2 cm longae, ovarii supra valde incrassatae, 6-sulcatae, virides, circ. dimidium aequantes, dorso leviter carinatae. Sepala lanceolata, acuminata, lateralia labello supposita, recta (minime torta), candida, 2·5 cm longa, 4—5 mm lata. Petala oblongolanceolata, acuta, aequilonga, 7—8 mm lata, candida. Labellum simplex, cuneato-obovatum antice obtusangulum, medio leviter emarginatum, aequilongum, antice 1·5 cm latum, carinae 2 satis obscurae e basi ultra medium discum decurrentes, discus ceterum minutissime velutinus, totum labellum candidum, carinulae pallide aureae. Gynostemium glabium, quam tabellum circ. semilongum, margo androclinii tripartitum, ubique minute denticulatum, anthera acuta. Fovea stigmatica ambitu cordata. Flores fugaces.

Ex Peruvia importari jussit P. Wolter v. cl. Magdeburgensis, de loco natalitio accuratiore nil constat.

Chysis Brünnowiana Rchb. f. Warsc. Bot. Ztg (1857) XV. 157.
Labelli lobis lateralibus late semifalcatis, lobū mediū ovatū obluṁ (cochleare?) aequantibus, carinis 3 ante lobū mediū, lateralibus extus media carinula adventitia auctis

unque labelli c. lamina refracta angulato.

Pedunculi pluriflori, bracteae ovatae acutae ovaria aequantes. Tepala sepalis sublongiora spathulata. Perigonium roseo-aspersum? – Peru (v. Warscewicz)

Oncidium Hirundo Rchb.f. & Warscew. in Bot. Ztg XV (1857) 158. Aff. O. planilabri Lindl. tepalis supra basin hastatis, sepalis lateralibus labello prope 2plo longioribus, apicibus divergentibus hirundinis caudā aemulantibus, labelli elongati isthmo longiore, callo pluridentato rotundo (nec rhombeo) alis retusis, rostello producto.

Inflorescentia O. pardothyrsi minor, haud adeo floribunda. Flores multo pallidiores, haud adeo pulchri, majores. Bracteae spathaceae ovaria pedicellata dimidiata haud aequantes. Processus odontoideus magis a basis distans quā in sequente. Rostell. validū nasus instar pronū. – Scheint nur cultiviert bekannt gewesen zu sein

Oncidium pardothyrsus Rchbf. & Warsc. in Bot. Ztg XV (1857) 138. – Aff. O. planilabri Lind & tigrati Rf. Sepala dorsali

latissimo supra unguē subcordato, sepalis tepalisque obtusatis, labelli brevis auriculis posticis setusis in isthmū brevē descendentibus, portione antica late cordata, callo velutino obtuse multipapulato, antice trilobulo ante processū odontoideū mediae tabulae infrastigmaticae adnatū, bursis abbreviatis, alis breviquadratis, rostello trilobo, lobo medio lineari.

Planta speciosa, panicula brachyclada innumeris floribus ex castaneo albo flavoque suavissime variegatis. Sepala lateralia labello paulo longiora.

Peru (de Warscewicz)

<u>Pleurothallis cardiothallis</u> Rchb. f. & Warsc. in Bot. Ztg. XV (1857) 158. — Aff. <u>Pl. cardiostolae</u> sepalis ligulato-acuminatis, labello cordiformi sepalis inferioris dimidiū excedente. — Foliū prope <u>Pl. cardiostolae</u> deflexū ut in illa. Sep. superius ovatū acutū, inferius subaequale majus, basi utrinque viride, ceterū brunēū. Tepala oblique in gynostemii basi inserta a basi lineari acuminata. Lab. supra unguē brevē linea abruptā angulatū. Gynostem. affinium specierū. — Heimat scheint unbekannt.

Lockhartia ludibunda Rchb. f. & Warsc. in Bot. Ztg. XV (1857) 159. – Aff. L. lunifèrae. – Callo in labelli basi carnoso pandurato, medio tuberculo sulpenicillato (ss. brevissime papulato) ornato, disco crislis triangulis s. bifidis superne asperulis tecto, lobo antico profunde ~~bifido~~ bifido, alis gynostemii semiovatis serrulatis; Sepala ovata, acuta. Tepala ovata obtuse acuta multo majora. Lab. basi humeratum, laciniae semifalcatae, semilunares ut L. luniferae, lacinia media pandurata, lobi postici trianguli parvi, lobus medius bifidus major, latior, antice minute crenulatus. – Flos aureus, purpureo-pictus. – Brasilien, Joinville.

Vanilla articulata Northrop in Mém. Torrey Bot. Club XII (1902) 31 t. 3. – A tall climber with aerial roots, aphyllous; stems jointed, joints fleshy, smooth, subangular, 2–3 dcm in length, Flowers in short axillary spikes, 6–12-flowered; bracts broadly ovate, or triangular, blunt, 5 m in length, Flowers about 6 cm long, fleshy, white with faint pinkish tinge, parts of perigone jointed at the base; sepals erect

spreading fleshy, oblanceolate, involute at the tip, 3-4 cm long,
about 1 cm wide; petals oblanceolate or spatulate, equalling
the sepals but thinner, keeled on the [illegible], lip adnate to the
column more than 2 thirds of its length, [illegible], broadly
obovate or triangular, about 3 cm [illegible] wide, channelled on
the back, 3-lobed, lobes [illegible] crispate, lateral lobes pa-
pillose below, central lobe sparingly [illegible] above, bear-
ded below (three tufts of cilia 5-[illegible]); column elongated about
1½ cm, anther terminal, jointed at the base, pollinia 2; stigma
shortly transverse; ovary fleshy, flattened, sometimes slightly
2-edged, incurved [illegible] wide; capsule elongated.
On New Providence [illegible] not common — New Prov. in bloom July



Tab. 3.

Vanilla articulata.

spreading fleshy, oblanceolate, involute at the tip, 3-4 cm long, about 1 cm wide; petals oblanceolate or spathulate, equalling the sepals but thinner, keeled on the back, lip adnate to the column more than 2 thirds of the way, convolute, broadly obovate or triangular, about 3 cm in width, channelled on the back, 3-lobed, lobes obtuse crispate, lateral lobes papillose below, central lobe sparingly crested above, bearded below (short tuft of cilia 5-6 mm lg.). Column elongated about 2½ cm, anther terminal, jointed at the base, pollinia 2; stigma shortly transverse; ovary fleshy, flattened, sometimes slightly 2-edged, incurved, 3-3½ cm lg. 5 m wide; capsule elongated.

On New Providence & Andros not common — New Prov. in bloom July

Sonderabdruck aus der „Österreichischen Gartenzeitung“ 1915, Heft 10.

Stanhopea leucochila Kränzl n. sp.

Aff. *St. graveolanti* Lindl. a qua differt perigonio concolore, labello albo, canali amplissimo, lamellula brevi bidentata mesochilii. Racemus pendulus, pauci (ad 5) florus, rhachi subcompressa, viridi, breviter brunneo-punctalata, bracteae punctalatae plus quam dimidium ovariorum aequantes illaque includentes, 4 cm longae, ovaria fere 6 cm longa, tenui-cylindracae. Sepala arctissime ad ovarium reflexa, lateralia ovata, acuta, concava ad 5·5 cm longa, 2·5 cm lata, intermedium late ligulatum, concavum, obtusum, aequilongum, 1·5 cm latum. Petala ovato-lanceolata, margine leviter undulata, acuta, etiam reflexa, mox collabentia, ad 4·5 cm longa, basi 1 cm lata; haec omnia pallide luteo-alba v. alutacea. Labelli hypochilium a latere visum profunde saccatum, sacco antice quasi in mentum producto, extus carinis 2, addito 1 semilongo instructum, intus ubique glabrum, canali amplissimo, ampliore quam in ulla specie mihi nota, antice modice angustata, mesochilium modice productum, inter cornua lamellula brevi, bipartita v. bilobula instructum, cornua pro ratione longa, acutissima; epichilium toto ambitu rhombeum, utrinque rotundatum, hypochilium 2·2 cm longum, cum sacco 1·3 cm altum, mesochilium 5 ad 6 mm longum, cornua (si in lineam rectam extensa) 3 cm longa, epichilium 2·5 cm longum, 3 cm latum, totum labellum album, epichilium sub lente valido punctulis pallidissime roscis adspersum. Gynostemium basi teres, modice curvatum, 5 cm longum, viride, alae a medio ad apicem in alulas parvas obtusas sensim transientis, albidae. Flores odorem haud ita gravem exhalantes quam illi aliarum specierum.

E Brasilia allata esse dicitur, auctore cl. P. W o l t e r, Magdeburgensi.

Eine neue Art aus der nächsten Verwandtschaft von *St. graveoleus* Lindl., aber mit kleineren, fast einfärbigen Blüten. Die Sepalen und Petalen sind blaßgelb, mit einem Anflug eines ganz schwachen Zimtbraun und ohne jede Spur einer Zeichnung. Das Labellum ist reinweiß, nimmt man jedoch eine Lupe zu Hilfe, so sieht man auf dem Epichilium — gewissermaßen unter der Oberfläche — einige wenige sehr blasse, rosafarbene Pünktchen. Ein nur an ganz frischen Blüten gut sichtbares, sehr wichtiges Merkmal sind zwei an der Basis verbundene kleine Zähnchen, welche genau zwischen den beiden Hörnern des Mesochiliums stehen. Dies Merkmal dürfte schon allein für sich die Aufstellung einer

Barkeria melanocaulon Rich. & Gal. t. 19. Annales de Gand. IV (1848) 297 t. 212. — Pseudobulbo nullo; caule erecto, basi nigrescente, terete, foliis distichis, alternis, paucis, ovato-lanceolatis utrinque attenuatis, apice acuto-p… bracteis lanceolatis erectis … elongato, multifloro (12 … atis, pedunculo adpress… ribus angustioribus, la… ibus ovatis, latioribus, … transverso bilobo, emarg… medio apiculato.



Journal … Orchid. Soc. N. 49 (1908)

Micros… stem 1 in lg. 211 hardly b… ceolate acuminate inaequi… tiole winged to the base, 6… 1 or 2, slender 6 in lg. lengthening as in flowering … (about 4 in.) nude except for a few linear bracts 1/4 in. lg., 4-angled. Floral bracts lanceolate, acuminate longer than the pedicels. Flowers very

Barkeria melanocaulon Rich. & Gal. t. 19. Annales de Gand. IV (1848) 297 t. 212. — Pseudobulbo nullo, caule erecto, basi nigrescente, terete, foliis distichis, alternis, paucis, ovato-lanceolatis utrinque attenuatis, apice acuto-plicatis, tantulum undulatis, bracteis lanceolatis erectis adpressis, racemo nutante, elongato, multifloro (12 & ultra), bracteolis lanceolatis, pedunculo adpressis, perigonii foliolis exterioribus angustioribus, lineari-lanceolatis, interioribus ovatis, latioribus (omnibus lilacinis), labello transverso bilobo, emarginato, lobis sinuatis, sinu medio apiculato.

Journal of the Straits Branch of the Roy. Asiat. Soc. N. 49 (1908)

Microstylis aurata Ridl. l.c. 27. — Stem 1 in lg. 27 hardly bulbous. Leaves 6–9 erect, narrow lanceolate acuminate inaequilateral, narrow at base into a petiole winged to the base, 6 in. lg. 1 in wide or narrower, scapes 1 or 2, slender 6 in lg. lengthening with flowering to 1 ft. base (about 4 in.) nude except for a few linear bracts 1/4 in. lg., 4-angled. Floral bracts lanceolate, acuminate longer than the pedicels. Flowers very

numerous opening 1 or 2 at a time, about 50. Sepals ovate laterals rather broader than upper ones, 1/8 in lg, 3-nerved, blunt. Petals narrower linear, 1-nerved blunt. Lip auricles very large recurved, red, ovate lanceolate acute, as large as the rest of the lip, limb obovate narrower at the base & enlarged into 2 rounded oblanceolate lobes, elevated veins at the base between the auricles. Column short with very short arms. Capsule elliptic oblong 1/4 in. lg.

Sarawak: Quop. Flowers yellow, later. lob. of lip red (Hewitt)

Liparis Downii Ridl. l.c. 27. — Stem about 1 1/2 in. lg. Leaves few elliptic lanceolate, herbaceous 3 in. lg. 3/4 in. across slightly narrowed to the base, acute at the tip. Peduncle slender, terete, 4 in. lg. bracts linear, acuminate, 1/8 in. lg. deflexed. Flowers 5. small, ovary & pedicel 1/4 in lg. Dorsal sep. oblong, linear, pale furcous-purple, lateral oblong decurved inaequilateral green with indistinct purple bronze along the outer edge (longer?) than the lip. Pet. linear narrow, purple 1/8 in. lg. Lip fleshy shining, base broad, parallel to the column. Apex oblong obovate decurved emarginate with very obscure

teeth on the outer edges, dull green at base passing into purple at the tip, calli 2 conic at the bend in the lip, green between them & for some way on the blade a deep purple grove. Column arcuate green, wings (rounded short), base dilated. Anther green small shaped. — Southern Siam (Down) flow. in Singapore June.

28

Bulbophyllum longerepens Ridl. l.c. 28. — Rhizome very lg. slender emitting tufts of roots from below the pseudobulbs. Ps. bulbs 1 in. apart, oblong, 1/2 in. lg. angled. Leaf elliptical, apex rounded, 1 1/4 in lg. by 1/2 in across, petiole 1/8 in. lg. scapes from the internode, very short, hardly 1/4 in, with ovate amplexicaul bracts. Floral bracts ovate acuminate longer than the pedicel. Flowers very small 1/8 in. lg, about 5 or 6 on a scape, glabrous; Sep. lanceolate cordate, ~~[illegible]~~ Pet. about half as long oblong subacute. Lip shorter than the pet. narrowly linear-oblong with 2 slightly raised veins running the whole length. Column stout. stelidia tooth-like acute erect longer than the anther.

Sarawak, Santubong (Hewitt)

Dendrobium sulphuratum Ridl. l.c. 28.— Rhizome creeping 1/4 in thorough. Stems swollen slightly 2 in. lg. covered with close sheaths. Leaves 2 oblong, coriaceous, acute, 3 in. lg. 1 in. wide, glabrous. Raceme subterminal with 1 lateral branch 2 in. lg. Bracts ovate or lanceolate acuminate 1/8 in. lg. Flowers rather thick in texture. Pedicels 1 in. lg. ovary elongate angled. Sep. lanceolate acuminate 3/4 in. lg. Pet. narrower sulphur yellow. Lip shorter 1/2 in. lg. base rather narrow, lateral wings short, round, distinct, midlobe fleshy, lanceolate acuminate or acute, reddish-brown.

Sarawak: Sajingkat (Hewitt) Febr. 10. 1906. This belongs to the Sestochilos-section & is allied to D. Treacherianum. Old bulbs not seen.

29.

Dendrobium (Sestochilos) radicosum Ridl. l.c. 29.— Rhizome very long slender with innumerable wiry roots. Pseudob. elliptic-oblong 1/4 in lg. & as far apart. Older ones larger conic 1/2 in. lg. Leaves 2 to each pseudob. elliptic coriaceous subacute narrowed at the base 1/2-3/4 in. lg. 3/8 in. across. Flowers solitary terminal. pedicel slender 1/2 in. lg.. Upper sep. lanceolate

hardly 1/2 in lg. acute, laterals slightly broader. Pet. narrower shorter, oblong, obtuse. Mentum short & rounded. Lip as lg. as the sepals, 3-lobed, base rounded; lateral lobes broad oblong triangular truncate. Midlobe longer elliptic with 2 thickened papillose ridges at the tip, a number of small papillae on the nerves of the base of the side lobes. Column rather long.

Sarawak: Tiang Lagu (Hewitt). „Pet. dull pale yellow with a rosy tinge. Lip yellow with red brown spots."

Coelogyne exalata Ridl. l. c. 29. — Epiphytic: Pseudob. crowded subglobose rounded. Leaf solitary, lanceolate, petiolate, coriaceous, 6–12 in. lg. by 3 in wide acuminate at the base, tip mucronulate, petiole 4 in. Raceme lateral erect, bearing 6 or 7 flowers, 8 in lg., bracts convolute 1/2 in. lg. brownish green, pedicels as long. Sep. 1 in lg. 1/4 in. wide. Upper one spathulate lanceolate acute, laterals oblong acute green, tinted brown or light brown, spreading. Pet. shorter spathulate lanceolate acute green, appressed. Lip spathulate entire, sides at base convolute, tip acute, 1 in. lg. with 3 distinct ~~green~~ nerves & no crests green. Column white

1/2 as lg as lip, dilated upwards, top flattened, apex broad club-shaped truncate. Clinandrium elevated, entire, anther deeply sunk, wings incurved. Pollinia 4 in 2 pairs, each pair on a distinct lanceolate disc, yellow pyriform, anther 2-celled, skull shaped, beaked, beak bifid; rostellum lobes large 2, upcurved, long, rounded. – End of August.

Sarawak: On Serapi, the top of Matang (Ridley n. 12470) – This singular plant differs from any species of Coelogyne in having a perfectly entire lip with no side lobes. [Die Polleneinrichtung stimmt erst recht nicht mit Coelog. – R.]

30 Platyclinis minor Ridl. l.c. 30. – Pseudobulbs oblong ovoid, crowded, yellow & much wrinkled when dry 3/8 in lg. Leaf linear-lanceolate, blunt, narrowed at the base into a petiole, 3 in lg. 1/4 in. wide, petiole very slender 1 in. lg. Peduncle 2-3 in. lg. very slender, flowers crowded in a raceme 1-3 in. lg. Bracts papyraceous, persistent, ovate, acute, 1/8 in lg. ribbed. Pedicels slightly longer than the bracts. Flowers 1/4 in. across. Sepals lanceolate, acuminate, acute, 3-nerved, central nerve thickest. Pet. shorter, broader, oblong, slightly dilated upwards

rounded, obtuse, strongly 1-nerved. Lip pandurate, base broad oblong, short; side-lobes small, rounded, inconspicuous, mid-lobe elliptic, obtuse, 3-ribbed. Column narrowed at the base, with large triangular wings, acuminate, rising from near the top & projecting above the col. wings of clinandrium triangular. Anther ovate. — Sarawak, Santubong (Hewitt)

Platyclinis minima Ridl. l.c. 30. — Pseudob. very crowded, conic, obtuse, 1/4 in. lg. Leaf elliptic, slightly narrowed, towards the rounded tip, shortly petiolated, 1 in lg. 3/8 in. wide. Raceme very slender, 2 in. lg. rising from the axil of a broad, lanceolate, papery sheath. Flow. about 14, distant; bracts oblong, obtuse, papery, persistent, 1/8 in. lg, pedicels half as long. Sep. lanceolate, acute ..... lg. Pet. half as lg. elliptic obtuse; lip clawed, oblong, entire, dilated towards the tip rounded. Column base (sic! wahrscheinlich Druckfehler) narrow dilated, above with lanceolate acuminate arms rising a little below the stigma. X Sarawak): Tiang Layu (Hewitt)

Eria (Tricholoria) aurea Ridl. l.c. 31. — Stems rather slen-
11 der, erect, 18 in. or more, tall, nearly glabrous, except
for a line of red hairs on the side, opposite the leaf & a
circle of red hairs at the mouth, (young parts sprinkled
with short red pubescence.) Leaves. lanceolate, light
green, acute, with a broad base, rather fleshy, glabrous.
Racemes 1 in lg., few flowered, red hairy, bracts at the base cup-
-shaped covered with red hairs; bracts (of the flow.) lan-
ceolate, obtuse, red hairy. Flowers small about 6, 1/8 in
lg. excluding the ovary. Upper sepal lanceolate, acute,
red hairy, mentum scrotiforme. Pet. linear falcate, obtuse,
Capsule elliptic 1/4 in. lg. Lip ?? — Sarawak, Santubong (Hewitt)
Flowers golden yellow with reddish brown hairs. The specimens
were nearly past flower.

Eria (Aeridostachyae) triloba Ridl. l.c. 31. — Stem appa-
rently cylindric, 3 in. lg. Leaves lorate or linear-lorate obtuse
14 in. lg. by 1 in. wide subherbaceous. Scapes 1 ft. lg. raceme dense
all covered with brown wool, bracts lanceolate 1/8 in. lg. brown
woolly, peduncle nearly 1/4 in. lg. Sep., upper lanceolate, laterals

subtriangular, mentum short. thick. rounded. Pet. very thin, narrowly linear. Lip 3-lobed shorter than sepals, base lg. ~~th~~ linear, very narrow; sides lobes triangular lanceolate recurved, acuminate, midlobe nearly as long as the claw lanceolate, obtuse, fleshy, puberulate, all strongly nerved the main nerve elevated on the disc. Column dilated upwards, rostellum projecting. — Sarawak, Santubong (Hewitt)
This resembles E. acidostachya Rf but has a very different lip.

32.

Pholidota grandis Ridl. l.c. 32. — Pseudob. several, crowded, elliptic or conical 2-3 in. lg. angled & ribbed. Leaves 2 to each pseudobulb, oblong-lanceolate, long petioled, acute. blade 12 in. lg. narrowed into the 13 in lg. petiole, ribbed. Raceme erect 8 in. lg or more from the base of a pseudobulb, peduncle half the length, nude, dull green spotted red. Raceme dense, many flowered, bracts caducous, elliptic, subobtuse, 1/2 in. lg., as lg. as the flowers, ovary & pedicel spreading, green. Sep. ovate, obtuse, apple green. Pet. smaller oblong, white, recurved. Lip. base rounded, saccate, edge elevated, undulate, side lobes broad irregularly oblong.

rounded, bifid at the outer edge, white. Col. short, hood very broad, truncate, retuse, narrowed, downwards green. Anther orange, semiorbicular, trigibbous, 2-celled, stigma cordate. – Selangor, Semangko-Pass. Flow. in B.G. Singapore

This fine Pholidota was collected by me with Coelogyne Deyana. In habit it quite resembles a Coelog., the flower spike with its dense white flowers is quite attractive.

Tainia borneensis Ridl. l.c. 32. – Rhizome creeping, covered with broken upsheaths. Leaf ovate, acuminate 6 in. lg. 2-2 1/4 wide, glabrous. Petiole 1 in. lg. stem 1 ft. lg. from the axil of a leaf, pubescent, with 3 or 4 lanceolate bracts, scattered about. Flow. 2-6, crowded at the top, pedicel woolly, 1/4 in. lg. bracts lanceolate, acuminate glabrous. Upper sep. lanceolate acuminate, laterals broader forming a short, blunt mentum, at the base 1/4 in. lg. Pet. narrower, linear, acuminate. Lip shorter obcuneate, base oblong dilated towards the end into a broad truncate limb with 2 short side lobes & a small oblong median one. Col. rather lg. curved stelidia short, anther lanceolate. Pollin. ovoid, flattened. – Sarawak Mt. Lingga. (Hewitt)

33

Plocoglottis borneensis Ridl. l.c. 33. — Pseudobulbs several, terete, thickened slightly towards the base, purplish, 2 in. lg. Leaf solitary, broadly lanceolate, 8 in. lg. 4 in. wide, plicate, tapering to the winged petiole, 7-nerved, dark green. Peduncle 12-16 in. tall, pubescent, arising from above the base of the pseudobulb, bracts small, ovate, acuminate. Flow. several. Upper sep. largest, ½ in. lg. lanceolate, long acuminate yellow, base red spotted, laterals similar but narrower at the base, backs pubescent. Pet. similar but glabrous. Lip less than ¼ in. lg. quadrate, tip broad, equally shortly trifid, pale yellow. Col. about as lg. yellow with 2 broad flat wings, white with red edges & descending bar, a violet streak below, widened at the base. Anther cap thick, dark yellow, blunt with a strong ridge running to the tip. Pollin. 4 in 2 pairs, in narrow cells of the anther, elliptic, 1 slightly above the other, pedicel linear-pulverulent (still with caudicle however) Disc oblong, yellow, rather large. Margin of clinandrium elevate subovate. — Common in Sarawak, especially at Lundu & Tambusan, terrestrial in damp woods. Also at Bidi. Ridley hielt diese Expl. erst für Pl. Lowii Rf. Xen. II t. 154.

34 Aufzählung der bis bekannten Arten:

I. Species with single leave to each pseudobulb.

1. Plocogl. Lowii Rf. Locality unknown, said to be Bornean.

2. Ploc. borneensis Ridl. Sarawak.

3. Ploc. porphyrophylla Ridl. (Pl. Lowii Hallier not Rf.) recorded from Borneo by Hallier.

4. Ploc. parviflora Ridl.

II. Species with leafy stems.

5. Ploc. dilatata Bl. – Sarawak, Mt. Kosa. Braang, on limestone rocks (Haviland N. 76.)

35

Plocoglottis parviflora Ridl. l. c. 35. — Leaves lanceolate, acuminate, 2, glabrous, thin, 5-nerved, narrowed to a long petiole, 12–16 in. lg. 1½ in. wide. Scape lateral from the rhizome, rather stout, 2 ft. lg. scurfy puberscent, flowers distant, few, small. Pedicel & ovary ½ in. lg.; closely scurfily puberscent. Sep. narrow linear-oblong, cuspidate, 3/10 in. lg. Pet. sub-spathulate narrower. Lip, base oblong, limb broader ovate-oblong, cuspidate, with 2 short linear ridges on the limb. Col. tall, anther cordate in outline, top fleshy retuse.

Sarawak. Mt. Lingga (Hewitt)
Allied to Pl. porphyrophylla Ridl. but the flow. are much smaller & the lip is of a different shape.

Saccolabium aurescens Ridl. l.c. 35. — Stem about 2 in. lg. Leav. crowded, lorate, 3 in. lg. little more than 1/4 in. wide, thick, apex very unequally 2lobed. lobes rounded. Racemes 1 in. lg. dense flowered, bracts lanceolate, acuminate, 1/4 the length of the pedicel & ovary. Flow. 1/4 in. lg. pale greenish yellow or golden yellow, spur white. Upper sep. ovate, acute, lateral ovate-oblong, mucronulate. Pet. as lg., ~~oblong, obtuse~~, narrower. Lip ovate rather longer than the sep., sides (later. lobes!!) elevated, rounded, terminal lobe narrower ~~rather spur as lg.~~ half the length of the hypochil, linear-oblong, ending in a fleshy rounded callus spur as lg. as the lip, nearly as lg. as the pedicel, stout cylindric, obtuse, upcurved. Col. very short with 2 much longer erect horns, acute. Anther small-shaped with a very large oblong truncate beak. Poll. 2 globose, small, on a oblong, linear pedicel (sic!) with a much larger oblong, truncate disc, bearing a short process beyond the point where the stipes adheres. — Sarawak: Kuching (Hewitt) - Nearly allied to S. secundiflorum Ridl.

36 Sarcolabium brachystachys Ridl. l.c. 36. – Stem short 4 in. lg. very thick. Leav. lorate, coriaceous, thick 8 in. lg. 1½ in. wide, deep green, apex bluntly unequally lobed. Panicles short 3-branched, branches 1 in. lg. many-flowered, bracts very short ovate acute. Sep. oblong, obtuse, 1/8 in. lg. Pet. shorter narrower, linear all yellow with a central reddish bar. Lip; side lobes large oblong ending in a cusp, midlobe ovate, obtuse, violet, spur short, rounded, scrotiform, white, a broad oblong fleshy bar over the mouth of the spur & a short conic boss in the centre of the lip between the side-lobes. Col. thick, wings incurved white, anther broad, long-beaked. Poll. elliptic, curved, on a long linear pedicel with a small disc. Sarawak. Tambusan. Beille im B.G. Singapore.
This plant is not rarely brought from Sarawak by native collectors.

Sarcolabium validum Ridl. l.c. 36. – Roots copious thick corky, stem stout 4 in. lg. ½ in through. Leav. coriaceous lorate 6 in. lg. 3/4 in. through, unequally bilobed. Panicles from lower axils 9 in. lg. slender, peduncle 3 in. lg. branches, upper one longest. Flow. numerous but remote, bracts ovate,

ovate small, pedicels 1/4 in. lg. Sep. lanceolate subacute Pet. much smaller. Dull yellow, with reddish purple blotches in centre. Lip shorter; spur nearly as long as the ovary, straight cylindric blunt, side lobes short, oblong, rhomboid, blunt midlobe longer, short, ovate, fleshy, callus in mouth of spur fleshy, quadrate, large, decurved. No septa in spur or callus. Col. short, anther 4-celled, ovate. Poll. transversely bilobed pedicel oblong, linear, disc oblong, truncate; col. wings short incurved. Rostellar arms horizontal, oblong, truncate, with a minute process at the upper edge. – Fl. July.
Perak. Kamuning (Machado)
Certainly allied to S. pallidum.

37.

Saccolabium fissicorne Ridl. l.c. 37. (unverständlich. Druckfehler?)
Stems 4 or 5 in. lg. Leav. linear-oblong rounded emarginate at the tip 4–5 in. lg. 1 in. across, rather thickly coriaceous. Racemes 10 in. lg. very slender, peduncle 6 in lg. purple, bracts very small ovate. Flow. rather distant small, rhachis faintly black scurfy, occasionally 1 branch near the base, pedicel & ovary 1/5 in. lg. bright yellow-green. Sep. ovate-oblong 1/10 in. lg.

dark red brown. Pet. narrower, linear, similarly coloured. Lip: side lobes small, erect, truncate, yellowish; midlobe cordate, acute, notched on either side, violet with centre & edges white. Spur nearly as long as the pedicel, parallel to it or deflexed, cylindric, slightly flattened, violet, an oblong, recurved, fleshy, truncate lamina in the mouth, spur not divided. Col. rather small, tall, violet, wings obscure. Anther white, scull-shaped, truncate emarginate in front. Poll. flattened, globose, orbicular, 2 lobed; pedicel (stipes) flat, narrowed above & below, slightly dilated in the middle, disc very small, oblong. Rostellum lobes short oblong, truncate, with deflexed points. Stigma cordate. – December.

Perak. Kamunting (Machado).

This is near S. Scortechinii but has the habit of S. pumila Ridl.

Trichoglottis punctata Ridl. l.c. 37. – Stem slender branched, 18 in. lg. leaves narrowly lanceolate, acuminate, 4 in. lg. 1/4–1/2 in. wide, narrowed at the base. Racemes 1/8 in. lg. few-flowered 1 or 2. Flow. 1/4 in. fleshy, upper sep. oblong, obtuse, laterals deltoid, triangular. Pet. oblong, obtuse. Lip adnate to the

column at the base, very fleshy, shorter than the sepals; base oblong, channelled, hardly spur-like but excavate, below the column a linear flat lamina obtuse, entire, apex bilobed dilated, lobes rounded with obscure fleshy processes projecting from the tip, behind 2 hornlike side-processes; all glabrous. Col. thick, anther snail-shaped, shortly beaked in front. Stelidia thick, subtriangular, rostellum very short & indistinct. Poll. not seen. Flow. yellow with red brown spots on the inside & reddish edging outside.

Sarawak-Lingga (Hewitt)

Near Tr. lanceolaria Bl. but the spur is less developed, the lip is distinctly bifid at the tip.

38

Sarcochilus fragrans. Ridl. n. sp. 38. – Stems 3 in. lg. Leav. 9, linear-lanceolate subfalcate narrowed at the base, 6 in. lg. 1 in. wide, dull green, coriaceous. Scape 5 in. lg. subterete, winged; bracts persistent, ovate 1/8 in. lg. green. Flow. open 3 at a time. Pedicels 1/2 in. lg. Upper sep. orbicular obovate, lower ones much larger 1/2 in. lg. orbicular ovate. Pet. small 1/4 in. lg. spathulate, all white with a transverse

line of 1 or 2 ochreous blotches. Lip 3/4 in. lg. side-lobes oblong, rounded, spur shoe-shaped, ~~xx~~ narrowed to a blunt point, with a raised boss or tooth in the upper face. calli in the mouth 3, 2 longer than the median one, short blunt, tooth-like. Lip all white except on one blotch below the mouth. Col. short, with a lg. foot, white with a indian red bar on each side of the foot running up & meeting behind the column. Anther broad & flat, thin, ovate, shortly beaked. Poll. 2 globular, bilobed, pedicel very short, disc oblong lanceolate, small. Clinandrium shallow. Rostellum bifid of 2 linear processes, column-wings incurved. — This pretty & deliciously fragrant orch. was found on a coffee-bush on Matang estate, it is allied to S. unguiculatus.

39 <u>Sarcochilus stellatus</u> Ridl. l.c. 39. — Stem thick 3 in. lg. Leav. 6 oblong, obtuse, unequally 2lobed, 4 in lg & 1 in. across thick & stiff. Racemes 1/2 in. lg, bracts small, ovate. Flow. expanded, ovary & pedicel 1/4 in. lg. Sep. 1/2 in. lg. spreading, oblong, acute, pale greenish yellow. Pet. smaller linear-oblong, acute. Lip 1/4 in. lg. side lobes oblong rounded broad, yellowish, with dull Indian

red, & a large rounded callus just below the lobes, white with 2 violet spots. Col. larger than the foot 1/4 in. lg. yellow, anther thin, ovate, acute, with a bar-shaped rib across the top. Poll. semi-linear, yellow, pedicel (stipes) short, disc small oblong. Clinandrium very shallow, rostellum lobes short, broad, triangular. Caps. sessile oblong, 1 in. lg. — Fl. Septemb.

Sarawak. Cult. exact locality unknown.

A pretty little plant with its green starlike flowers. The plant appears to be regularly self-fertilized.

Dendrocolla fimbriata Ridl. l.c. 39. — Stems 1½–1 in. lg., forming large tufts. Leav. lorate 3 in. lg. ½ in. wide, pale green. Scapes 2 in. lg. shorter thickened. Flow. white. Sep. lanceolate, lower ones oblong, lanceolate, acute, with a process at the base. Pet. lanceolate spathulate smaller. Lip convolute acute pubescent, side lobes distinct, rounded, median linear obtuse, all white & fringed with hairs, a callus short, oblong, truncate in the centre of the lip maroon, edged with yellow, a tuft of hair behind it, an orange spot in the spur. Col. short, white, broad belly depressed in the centre, foot short.

Clinandrium not raised. Anther skull-shaped, retuse in front. broad. Poll. pale yellow, oblong on a short triangular disc. no stipes; rostellum short. — Fl. Septemb.

Sarawak. On trees near the race course (Ridley & Hewitt) Allied to S. trichoglottis Hook. f. which occurs there too, conspicuously different in its white flowers & the lobed lip. a pretty plant & fragrant.

40)

Goodyera rostrata Ridl. l.c. 40. — Stems a ft tall, Leav. narrowly lanceolate slightly falcate, acuminate at both ends & distinctly petiolate, 5 in. lg. including the petiole (1 in.) sheaths short papery. Raceme (in a bud only) rather crowded Bracts 1/4 in. lg. lanceolate, acuminate, pedicel hairy short. Sep. hairy red, upper one lanceolate, base gibbous, adnate to the thin pale petals, laterals connate, ovate, hairy, blunt, red. Lip shorter, base thin, saccate, equalling the rather long curved beak, red, glabrous inside with no calli. Col. short with small rounded side wings. Anther very long beaked; anther cells gibbous, beak curved, cylindric acute. longer than the sepals. Rostellum arms large spathulate truncate, base narrowed,

dilated upwards into broad wings, shorter than the anther, minutely puerlular with a strong rib up the centre.
Sarawak. Lingga (Hewitt)
Differs from G. rubens Bl. in the long beaked lip & entire broad winged labellū & narrow leaves.

Habenaria pelorioides Rchb. f. Trans. Linn Soc. XXX, 139 t. 27.
Von Micholitz in Tonkin gesammelt. Blt. weiss. [ebendort H. geniculata Don. – Nur allgemeine Bemerkungen.

41

Habenaria borneensis Ridl. l. c. 41. – Whole plant 6 in. to a ft. tall, tubers subcylindric. Leav. crowded at the base of the stem, lanceolate, acuminate, 3 in. lg. 1/2 in. wide, glabrous, bright green, drying black. Raceme 9 in. or less, floriferous nearly to the base. Flow. very numerous, crowded, green, bracts narrow, lanceolate, acuminate, with a long point, keeled & the lowest 3-nerved, lower ones longer, much longer than the flowers. Sep., upper ovate lanceolate, obtuse, 1/8 in. lg., lower narrower, lanceolate. Pet. broader, ovate, obtuse. Lip trifid, central lobe linear fleshy, obtuse, as long

as the petals, lateral lobes filiform, more than 3 x as lg. with a broad flat base, spur thick cylindric about as long as the petals, lip bilobed. Col. small, anther short, arms very small. ovary 1/4 in. lg. narrow. Fl. August.

Sarawak. Matang. (Ridley N. 12475)

In clay banks in the coffee estate & on the path up the hill.

42

Habenaria roseata Ridl. l. c. 42. — Stem slender 2 ft. tall. Leav. distant few, linear, acute 3 in lg. 1/4–1/2 in wide, dull glaucous-green, sheathing at the base, upper one narrower & more acuminate. Raceme lax, about 8-flowered, bracts 1/2 in. lg. lanceolate, acuminate. Ovary & pedicels 3/4 in., not twisted; ovary narrowed upwards. Fl. reversed. Upper sep. ovate, obtuse, boat-shaped, forming a gaba (soll wohl galea heissen?), with the oblong petals 1/8 in. lg. pale pink; lateral sep. oblique ovate, obtuse, strongly 3-ribbed, spreading. Lip lufted to the base-lobes, narrow, linear, white, median (lobe?) longest 1/2 in. lg. Spur 3/4 in. long, slender, obtuse, geniculate in the middle. Anther hooded nearly as long as the pet., arms rather long, abruptly upcurved. Poll.

pyriform small with a very long, slender stipes. Stigmatic-processes on the side of the anther distinct, pustular. Stigma process thick fleshy, clubbed, flat on the inner face. Rostell. 3-lobed erect, side-lobes very short, midlobe linear, pustular.

<u>Siam</u>. at Trang (cult. Bot. Gard. Penang)

This slender plant with pale rose flowers is allied to <u>H. viridula</u> Parish & Rchf. a native of Tenasserim figured Trans. Linn. Soc. XXX t. 27 B. - The structure of the rostellum & stigmas is however different & the leaves are much narrower.

<u>Journal of the Roy. Asiat. Soc. - Straits Branch - Bd. 50 (1908)</u>

<u>Oberonia filaris</u> Ridl. l.c. 126. — Caulescent, stems 126
flexuous, 3-4 in. tall, leav. 7-12 ensiform, acuminate 1 in lg. 1/4 in. wide. Spike very slender 4-8 in. lg., floriferous to the base. Flow. very minute, yellow, in approximate half whorls, bracts lanceolate, ~~linear~~ acute. Sep. ovate, acute. Pet. narrower linear-oblong, obtuse. Lip oblong, obtuse or emarginate as long as the pet. Capsule stalked, 9-angled. 1/10 in. lg. — <u>Sarawak</u>. Kuching (Hewitt) Fl. Sept.
All. to <u>O. ciliolata</u> Hook. f. but much smaller, with a slender filiform spike & more minute, not ciliolate flowers.

1911 Oberonia longifolia Ridl. l.c. 127. — Stemless with lg. filiform roots. Leav. about 5 elongate, scimitar-shaped linear acuminate, articulated & separating from the articulations when dry, 8 in. lg. 1/4 in. wide, articulations 1/2 in. lg. Spike slender 8-14 in. lg. floriferous nearly to the base, flow. minute irregularly arranged; bracts linear, acuminate, longer than the flower. Sep. ovate, acute. Pet. linear obtuse. Lip 3-lobed side lobes from near the base, narrow, linear, shorter than the midlobe, which is ovate, obtuse, minutely toothed. Col. fairly lg. ~~x~~ with short tooth-like stelidia. March–Septemb.

Sarawak. Bukit Tendang, Baram (Ridl.), Quop (Hewitt)

Remarkable for its lg. narrow leav.s curved, acuminate lg. spike.

Oberonia rubra Ridl. l.c. 127. — Acaulescent. Leav. fleshy ensiform 1/2-1 in. lg. 1/2 in. wide, red. Spike 2-3 in. lg. base shortly nude, above densely floriferous. Flow. in 4 closely pressed alternate half-whorls below; incomplete whorls above, bracts linear, acuminate, entire as long as the flower. Sep. ovate lanceolate. Pet. narrower entire. Lip ovate entire, centre depressed. Caps. stalked 1/8 in. lg. subglobose, 6-angled, the 6 ribs very prominent.

Sarawak. On coffee trees on Matang estate (Ridley)
The whole of the little plant is usually red, leav. flow. & fruit.
The leav. are very fleshy. The lip appears to be entire ovate.

128

Platyclynis Bartoni Ridl. l. c. 128. – Pseudob.? Leaf narrow-lanceolate, acuminate, obtuse, narrowed at the base, 7 in. lg. 3/4 in. wide, keel prominent, ribs less prominent 6. Scape 12 in. lg., base 6 1/2 in, nude; raceme lax, flow. (faded) in apex. bracts narrow-lanceolate, papery, 1/5 in. lg. spreading, persistent, pedicels with ovary a little shorter. Fl. apparently yellowish, with a brown lip 1/4 in. across. Sep. lanceolate acuminate acute. Pet. nearly as long but little more than half as wide. Lip shorter than sep., base narrow, side lobes fairly large, lanceolate, acute, excurved, midlobe much longer ovate, acute, dilated towards the middle, margin towards apex denticulate, 2 elevated keels running from base & disappearing on the midlobe. Col. hood long oblong, 3-toothed at the truncate tip. Stelidia large rising as a margin to column from base, above triangular-lanceolate with a broader base, tips acute, free from just below the stigma. – Brit. New-Guinea.

This appears to be the first Plat. found in N-Guin. It is remarkable for the lg.-curved filament & longer sortellæ than usual.

Bulbophyllum patens Hook. f.

Auf Java von Beauclera gefunden. Wie scheint zum 1st Mal. Von J. J. Smith nicht erwähnt.

129

Bulboph. lasianthum Lindl. l.c. 129.

I met with a large plant of this strange Orch. on a tree at Kukub, South Johore, in flower at April. Well known from the rocks on Penang Hill. – Also in Sumatra.

Bulboph. Scintilla Ridl. l.c. 129. – [Monantha, parva]

Rhizome slender wiry, pseudobulbs curved, base prostrate, upper parts ascending 1/5 in. lg., leaf oblanceolate fleshy 1/4 in. lg. Scape very slender 1 in. lg. Flow. 8/10 in. lg. Sep. very narrow, lanceolate, acuminate, bright orange. Upper one much narrower than the others. Pet. very short, linear, orange darker at the tips. Lip linear acuminate, fleshy. Deep pink nearly half as long as the sepals.

Sarawak. At Kuching (Hewitt)
A distinct little species resembling B. catenarium Ridl.
but with acuminate sepals, gibbous below & different pseudob.

Bulboph. punctatum Ridl. l.c. 129. – [Sestochilos] Pseudob. conic
1 in. lg. with fibres of broken sheaths at the base. Leaf elliptic coria-
ceous, subacute, base slightly narrowed to petiole, 5 in. lg.; 1½
in. wide, petiole 1 in. Scape slender 3½ in. lg. Flow. solitary, up-
per sep. ovate, acuminate, ¾ in. lg. ½ in. wide, yellowish with
brown spots, lateral gibbous at the base, narrower lanceo-
late-linear, acute, pubescent, yellow, distally with a reddish
tinge & red brown spots below. Pet. lanceolate, cuspidate
nearly as long as the sep. but narrower. Lip short, oblong,
fleshy, base prolonged into 2 red processes, sides high eleva-
ted, apparently purple with a pale broad ~~groove~~ groove between.
Sarawak. Matang (Hewitt)
Allied to B. insigne Ridl. of Borneo.

130

Bulboph. perpusillum Ridl. – [Racemosa] l.c. 130.
A very small, tufted plant with minute cylindric pseudob.

1/10 in. lg. crowded together & subtended with papery lanceolate bracts. Leaf fleshy coriaceous, oblanceolate, obtuse, nearly ½ in. lg. 1/10 in. wide, narrowed into a petiole at the base, tip usually rounded with a minute mucro. Scape slender, as long as the leaves, bearing 1 flower at the top, bracts 2, the lowest lanceolate, the upper one narrower. Flow. yellow less than 1/10 in. lg. pedicel short. Upper sep. lanceolate, acuminate lateral gibbous at base above lanceolate acuminate curved. Pet. linear half as long. Lip broad, thin, base oblong with 2 fleshy ridges enclosing a depression, lamina ovate sub-acute, apparently white. Col. with ~~an~~ short oblong stelidia, short ~~trun~~ uncate. Anther rather broad, beak rounded fleshy.

Sarawak. Bidi (Brookes) Te-January. Flow. yellow.

Bulboph. pumilio Ridl. l.c. 130. – [Racemosae] Rhizome slender, short, covered with papery sheaths; pseudob. cylindric 1/10 in. lg. nearly twice as lg. Leaf coriaceous, linear, subacute, 2 in. lg. – in. wide (publ.) Raceme slender 1-1½ in. wide, enclosed at the base with a tubular sheath, with a lanceolate limb. Flow. remote, white, about 10, bracts lanceolate, acuminate,

about as long as the pedicel 1/20 in. lg. Sep. 1/5 in. lg. lanceolate acuminate, lower ones gibbous at the base. Pet. lanceolate acute half as long. Lip with a narrow basi limb, elliptic-lanceolate, obtuse, margins denticulate. Stelidia porrect, oblong, rounded at the tip rather large for the size of the column. – Fl. Summer.

Sarawak. Rid. (C. Brookes)

The number of the Bulb. of this section seems endless. This small spec: differs from any other known to me in its linear leaves & denticulate lip.

131

Bulboph. Brookesii Rid. l. c. 131. – Rhizome thick & woody with closely appressed, subglobose pseudob. with depressed tops, truncate, rounded 1/4 in. lg. Leaf coriaceous elongate subspathulate, apex rounded, base gradually narrowed to a thick petiole, blade 6 in. lg. 3/4 in. wide, petiole 1/2 in. lg. Raceme 6 in. lg. slender erect, glabrous, with several sheaths at the base. Flow. numerous, scattered from near the base upwards, bracts linear, acuminate 1/10 in. lg. pedicels little longer. Sep. lanceolate, subacute, 1/8 in. lg. Pet.

very small, fleshy, wider at the base & for more than half the length of the lip curved up with a groove between apex, [illegible] ovate, thick & fleshy. Col. & its foot short. Stelidia short, subulate. — Sarawak. At Bidi (C. Brooser)
This species has somewhat the appearance of B. pubescens Ridl. but it is quite glabrous & has curious closely approximated pseudob. of a cupshape.

Bulboph. sarcanthoides Ridl. l. c. 131. — Rhizome very short, pseudob. very small. Leaf succulent, lorate, drying black, falcate, acute, 1 1/2 in. lg. 1/4 in. wide [distichous.] Scies vertebr. id nicht. Racemes very dense 1/5 in lg. with lanceolate, acuminate bracts, comose. Flow. yellow, 1/4 in. lg. Sep. lanceolate, caudate, with a strong central midrib, no lateral veins. Pet. wider at the base, lanceolate, caudate, rather shorter. Lip half the length of the sep. base narrow, lateral lobes ovate, curved obtuse, midlobe very narrow, acuminate, caudate, centre elevated, thickened. Col. short & broad winged, filament distinct. Anther for the col. large oblong, rounded. — Johore. Sungei Tebrau. On trees over the river. —

A very curious little plant with the habit of a small Saccolabium with flowers in upwards dilated racemes.

Nota: Hierbei wahrscheinlich kein Bulboph. Ich vermute im Text einen Flüchtigkeitsfehler; es muss heissen: leaves (nicht leaf) ---- distichous.

132

Dendrobium gramineum Ridl. l.c. 132. – Stems lg. very slender, branched, about 1/20 in through, flexuous; branches 6 or more in. lg. Leaves linear-lanceolate. 1/2–1 1/2 in. lg. 1/5 in. wide, acute, bifid, with 1 acuminate point much longer than the other. sheaths 1/4 in lg. ribbed & thinly nigrohirsute. Flow. solitary with several papery ovate bracts at the base, peduncle slender 1/4 in. lg. Sep. 3/10 in. lg. lanceolate 3-veined. Mentum long straight parallel to the pedicel, obtuse, 1/5 in. lg. Pet. narrow linear. Lip as lg. as the sep., base linear, lateral lobes triangular acute, short & broad. Midlobe spathulate with a narrow closed (claw?) & a rounded limb, 3-ridged & papillose, stelidia broad, rounded. – Sarawak. Matang (Ridley. Hewitt) Allied to the terrestrial, aquatic D. conostalix Rchb. but epiphytic with very different pet. & lip.

Dendrob. Ardeni Ridl. l. c. 132. – Stems slender branched, pseudob. subcylindric, slightly ~~flowered~~ flattened, olive green, 1½ in. lg. by ¼ in. wide, remote. Leav. lanceolate, linear, 3-4 in. lg. ½-½ in wide, dark green, coriaceous, narrowed at the base, suboblique. Flow. in tufts from the axils of the leaves, appearing singly or in pairs, as large as those of D. Kelsallii. Pedicels pale green, ¼ in. lg. Sep. oblong, recurved, suboblique, cream-white with faint purplish veins. Pet. linear acute, narrower. Mentum short, broad, conic, curved, faintly marked with red veins. Lip as in D. Kelsallii but lateral lobes rounded, pink, midlobe with a distinct claw, then dilated into a bilobed rounded limb, on the disc 2 fleshy large semi-elliptical cushions, deep-purple rest of the disc & claw violet-pink, limb creamy yellow. – Fl. May.

Johore. Kusak estate. Tempayang River.

This resembles D. Kelsallii but differs in the rather longer recurved sepals, the short rounded lobes of the lip with a distinct claw between the disc & the limb, instead of overlapping & instead of 3 ridges running fr the base of the lip to the

base of the midlobe, there are 2 fleshy thick deep purple half elliptic cushions with a groove between. The flow. are less than half an inch long.

133.

Dendrob. Crabro Ridl. l. c. 133. — [Pedilonum] Stems subcylindric, dilated upwards, strongly grooved of about 6 internodes, 2-4 in lg. 1/4 in through, when dry. Leaves elliptic obtuse 3 in. lg. 1 in. wide, slightly narrowed at the base. Flow. borne in the leafless stems on the upper nodes, solitary on short 1/5 in. pedicels with an ovate bract. Peduncle slender 1 in lg. pink. Sep. ovate 1/4 in lg. Pet. similar but shorter & more rounded at the tip. Mentum 1/2 in. lg., base narrowed, then dilated at the base, like the body of a wasp. Lip 1/2 in. lg. base narrow, linear, then suddenly dilated into 2 oblong ovate, rounded lobes. 2/5 in. across when expanded, then narrowed, linear, ending in a rounded, reniform limb. Between the lobes the veins are thickened into a callus. Col. dilated widely, anther conic blunt, apex thick, stigma cordate large with a broad thick elevated margin. — Fl. June.

Sarawak. Matang. (Hewitt) Petals with a green tinge, the veins red. Lip & column white.

A fine Pedilonū remarkable for its curious mentū narrowed & dilated towards the lip & curved like the abdomen of a wasp & for the lip with its 2 broad side-lobes about half way from the base & the broad fan-shaped terminal lobe.

137

Dendrob. multiflorum Ridl. l.c. 134. — [Pedilonum]

Stems slender, 18-24 in. (lg) tall, 1/4 in. through, slightly flexuous, strongly grooved, internodes 1 in. lg. Leav. ~~slightly~~ elliptic, obtuse, nearly sessile, 3 in. lg. by 1 in wide. Racemes terminal 2-4 in. lg. many-flowered; bracts narrow, lanceolate small. Flow. large, pedicel winged 1/2 in. Sep. elliptic lanceolate acute. Pet. similar a little smaller. Mentū ~~lg~~. curved, 1/2 in lg. thick. blunt. Lip spathulate, base linear centre thickened, limb broadly orbicular ovate 1 in. across, distinctly nerved. Nerves at the base of the limb elevated into an undulating keel. Col. rather tall, oblong, anther short & thick, stigma narrow, oblong with an elevated margin & 2 fleshy wings outside. Caps. 1/2 in. lg. elliptic. — Pt. Mart.

Sarawak. At Buop. — Petals & lip yellow, sep. red outside, the colour more pronounced at the mentum. The habit of D. secundum but with very different flowers.

Dendrochilum spathulatum Ridl. l.c. 134. — Rhizome lg. much branched, slender, 1/10 in thick. yellow; pseudob. cylindric, yellow & deeply grooved when dry, 1 in. lg. 1/10 in. through. Leaf elliptic, lanceolate, narrowed, rather abruptly to the base, apex obtuse, 2 in. lg. (Racemes slender, about 2 in. lg.) flowers to the base. bracts, ovate, acute, minute, persistent, papery, half as long as the pedicels. Flow. 1/10 in. across. Sep. linear obtuse. fleshy. 3-nerved. Pet. shorter. Lip less than half as long as the sep. narrow, entire, fleshy, base oblong with 2 fleshy raised keels, apex subspathulate, rounded, thin. Col. very short, upper margin oblong, as long as the rest of the column, stelidia from near the anther base lanceolate, acuminate, apex subulate as long as the clinandrium-margin. Caps. 1/2 in. lg. & nearly as wide, rounded, 3quetrous, almost cone-shaped. — Pahang. On the Tahan river in fruit. Sumatra. Sungei Kelantan; Siak (Ridley)

Certainly near D. aurantiacum Bl. but distinct in the very large oblong crest to the column & spathulate lip. I believe the Pahang pl. is identical with the Sumatran one though it is only in fruit.

135

Dendrochilum intermedium Ridl. l.c. 135.– Stems long, woody, creeping, 1/10 in. through, pseudob. remote, 1½ -3 in. apart, cylindric, rather slender, 1 in. lg. Leav. coriaceous, elliptic, obtuse, 1½-2 in. lg. by 1-1½ in. wide, petiole ½ in. lg. Racemes slender 4 in. lg. 2-5 together, close to a pseudob. with numerous lanceolate papery bracts at the base, floriferous to the base. Rhachis black, pubescent, floral bracts minute, ovate, acute, papery, as long as the pedicels. Pedicels 1/20 in. lg. Flow. pale yellow very small. Sep. elliptic apices rounded. Pet. narrower & shorter. Lip shorter than the sep. ½ its length, linear oblong, entire, with 2 large keels in the centre. Col. rather small, stelidia linear, acute, erect longer than the column, back of clinandrium ovate.– H. Frene, Sarawak. Mt. Matang. (Hewitt)

This species is allied to D. aurantiacum Bl. of Java & brevi-

labratum Ridl. collected at Baram by Hose. The foliage is quite different from the lanceolate leaves of the former, which it resembles in its nigro-pubescent rhachis that of D. brevilabratum being glabrous.

136

Eria eurostachys Ridl. l.c. 136. — Stem cylindric 8 in. tall covered with rather large loose sheaths, striate, with oblique mouth, 1 in or less lg. Leav. numerous at the apex narrow-lanceolate, acuminate, acute, narrowed to the base, 4-6 in. lg. 1/2 in wide. Racemes from upper axils very slender 4 or 5 in. lg. entirely ferrugineous, hairy, 1/20 in. lg. very small, numerous, red hairy. pedicel shorter & thick as lg. Flow. to end of mentum 1/5 in. lg. Upper sep. ovate, acute, cymbiform, laterals ovate, oblique, mentum lg. straight, twice as lg. as the pedicel. Pet. linear oblong, obtuse, shorter than the sep. Lip very narrow, spathulate claw linear, limb entire cordate, obtuse. Col. short very broad, anther flattened subquadrate setose. Stigma ellipt. large. Sarawak. Mt. Matang (Hewitt.) Fl.-June.

A most curious plant with ferrugin. spikes of small flowers & leaves drying too of a rusty brown. It seems to be near E.

E. floribunda from its habit & form of the stem but the hairiness & form of the flow: suggests an affinity with the Aeridostachya-section.

Eria Brookeri
~~[illegible]~~ Ridl. l.c. 136. — Stems cylindric fleshy 4 in. lg. nearly 1/2 in. thick. Leav. lanceolate, oblong, acuminate, acute, narrowed into a petiole, nerves prominent. 9 in lg. 1 1/2 in. wide glabrous. Raceme dense, from below the foliage, 1 1/2 in lg., flow. numerous crowded, peduncle very short with ovate papery bracts, floral bracts oblong lanceolate, glabrous, veined as long as the hairy pedicels 1/8 in. lg. Dorsal sep. ovate, lanceolate, cymbiform, laterals falcate, acute, mentum as long as the free portion, all hairy, broad, rounded at the tip. Pet. falcate, lanceolate, acute. Lip claw long, linear, narrow, lamina ovate obtuse obscurely 3 lobed, side lobes shorter than ~~midl~~ midlobe, 2 elevated nerves run from the base of claw diverge on disc & meet again on the centre of midlobe where they are elevated into a fleshy mass & joined by the median nerve. Col. short & stout, stelidia small, anther

broad, thin. Pollinia pyriform. Fl. March.
Sarawak. Ridl. – Flow. pale almost flesh-colour, midlobe of the lip yellow. – Near E. densa but with hairy flowers & no basal lobes to the lip. (The specimen is poor.)

137

Plocoglottis hirta. Ridl. l.c. 137. – Stem over 1/2 in. through, covered with long pubescent leaves, lanceolate 15 in. lg. 2 1/2 in. wide acuminate, narrowed at the base to the broad sheath, hairy on both surfaces, ribs 5. Scape axillary 3 ft. tall hairy, at the base a few distant sheaths ribbed, acuminate, 1 in. lg. raceme lengthening to about a foot, bracts remote, lanceolate, acuminate, caudate, subulate, hairy, 1-1 1/2 in. lg. pedicels hairy 1 in. lg. Sep. & pet. similar, lanceolate, caudate, hairy, outside. 1/2 in. lg. 1/8 in. across at the base. Lip glabrous, subquadrate narrowed a little at the base. Apex with a long linear horn from each angle & a central one decurved at the tip. Towards the base of the lip a pocket is formed by the involution of a portion of the centre. Col. short & very broad, clinandrium deep, no arms, pollen masses 4 oblong, ovoid.

Sarawak. Bidi (C. Brooke)
A very remarkable plant with apparently a tall ~~scape~~ leafy stem from the axil of which rises a tall slender scape ending in a gradually elongating raceme of hairy flowers. The whole plant is very hairy. No note of colour of flower.

138

Geodorum pulchellum Ridl. l.c. 138. — Stem leafy, with leaves little over 6 in. tall. Leav. 4 unequal the largest elliptic, undulate, acute, herbaceous, dull dark green, about 5-nerved, 5 in. lg. 2 in. wide. Racemes 2 to each leaf tuft, 3 in. tall, peduncle 1-2 in., covered with loose lanceolate sheaths, raceme nodding, flow. about 8, bracts lanceolate, acuminate, 1/4 in. lg., pedicel as lg. Sep. oblong lanceolate, upper one narrower than the others 5/8 in lg. white. Pet. wider oblong lanceolate as lg. white. Lip entire saccate, shortly spurred, 1/2 in. lg. apex rounded, entire, base outside white, inside tinted purplish with 2 short calli or bosses, pustular, dark red, apex of lip bright orange yellow. Col. short, very broad & flat with no distinct wings, white with purple-madder streaks on the face & edging at ~~the~~ base.

Stigma large semi-ovate, anther low, rounded, flat, truncate in front, pale yellow with a purple margin at the back & edges of cells. Clinandrium-margin elevated ovate. Rostellum indistinct, nearly entire. Poll. elliptic. — Fl. April.
Siam: Bang taphan (Dr. Keith), Singgora (Down)

Taeniophyllum gracillimum Ridl. l.c. 138. — Epiphytic: stem 1/10 in. lg. roots elongate, very narrowly linear, obtuse, 3–5 in. lg. 1/20 in. wide. Scape very slender, 1½ in. lg., base nude, raceme very short, rhachis slightly thickened, bracts minute, ovate, acute, pedicel & ovary longer. Perianth white 1/10 in. lg. Sep. lanceolate obtuse. Pet. elliptic rather wider. Lip entire triangular, ovate, obtuse, much larger than the pet. Spur nearly as lg. as the pedicel, pendulous clubbed. Col. short, anther saucer-shaped, pollinia 4, hemispheric (spur pedicel) slender terete, disc very lg. lanceolate acute, posticous end rounded; rostellum elongate, broad, lanceolate.
Johore: Sungei Tebrau (Fl. March), Tempayan river, Selangor: Petaling woods.
The plant seems to be intermediate between Sarcolabium

& Taeniophyllum. The short stem, slender inflorescence with persistent, distichous bracts & flow. appearing singly & the pollen-masses divided completely, are characters of Taeniophyllum, while the glandula & stipes of the pollinia resemble those of a Sarcolobium.

139

Dendrocolla minima Ridl. l. c. 139. – Stem 1/4 in. lg. covered with oblong, obtuse, fleshy leav. 1/2 in. lg. by 1/2 in. wide or less. Racemes several 1/2 in. lg. peduncle very short, raceme lengthening to nearly half an in. with crowded ovate, acute, recurved bracts. Flow. very small, 1/8 in. lg. apparently pink. Upper sep. ovate, laterals ovate-subtriangular larger. Pet. shorter oblong. Lip with 2 appressed upper lobes, linear oblong, below a spur as lg. as the short peduncle, elongate, rostliform, rounded; midlobe so short as to be concealed beneath the 2 side-lobes. Col. straight rather tall, no stelidia, rostellum ovate, anther small-shaped, truncate in front with a short tooth, yellow.
Sarawak: Kuching (Hewitt)
A very odd little thing, the habit is quite that of a Dendrocolla,

but the lip is very curious, the side lobes meet together in the middle line, leaving only a slit as an entrance to the spur; the main part of these is depressed so as to form a flat disc, beneath is a minute midlobe. The spur is more like that of a Saccolabium. [Wer die ganze Pfl. hätte, würde vielleicht eher ist als Dendro.]

140

Saccolabium laxum Ridl. l.c. 140. – Apparently a tall slender plant, upper part of stem 1/4 in. through. Leav. lorate, blunt, unequally bilobed, coriaceous, 6 in. lg. 3/4 in. wide. Panicle 18 in. lg. lax diffuse, branches 4-6 in. lg. Flow. distant, bracts fleshy, triangular. Flow. numerous 3/10 in. lg. Sep. oblong, obtuse, upper one slightly hooded. Pet. smaller, linear, oblong, shorter & only half as wide, greenish inside with a dull brown tinge. Lip white inside, lobes triangular lanceolate, midlobe subcordate with a narrow base, fleshy, blunt, with a fleshy central keel running down into the spur & forming a partition between the lateral lobes, it is pubescent but the spur & the midlobe are glabrous. Spur 1/5 in. lg, thick, porrect, curved forwards

parallel to the midlobe or nearly so, callus on the base of the spur in the mouth, a raised tongue-shaped ridge, fleshy, grooved down the centre & pubescent at the lower end. Col. short & broad with 2 short linear, pubescent stelidia. at the points where the lip is adnate to the column anther broad. front margin broad, truncate; top of anther rounded, grooved. Poll. elliptic small, grooved transversely below the middle, ~~gla~~ stipes triangular, short, disc (glandula) large, fleshy, saddle-shaped, deeply bifid: rostellar arms short, blunt, widely divaricate. - H. Tan.

Sarawak: Matang (Hewitt)

One of the Sarcanthus set of their genus & seems very distinct. The abrupt forward curve of the thick spur reminds of the form of the lip in Sarc. penangianum minimum etc. The form of the col. & the curious pollinia recalls that of Sarc. rostellatus Ridl.

141

Sarcolabium pinifolium Ridl. l. c. 141. — A dwarf plant 4 in. tall, internodes very short. Leav. crowded, erect, sheaths strongly grooved, 1/5 in. lg. lamina terete, acute,

1½ in. lg. ⅛ in wide. Raceme slender ½ in lg. 2 or 3-flowered. bracts very small ovate. Flow. — in. lg. from tip of sep. to spur-tip. Sep: upper one ovate, blunt, laterals broader, ovate, curved, strongly 3-nerved. Pet narrower & shorter, linear-oblong, slightly dilated towards the tip. Dull green with red centre. Lip shorter than sepals bright yellow, spur short scrotiform, lateral lobes linear, subacute, erect, small, midlobe bar tall acuminate basal lobes, rounded, small; callus in spur-mouth a small short ridge, on back of spur a short cylindric. decurved process. Col. rather tall, anther broad, beak large, ovate, triangular. pollin. unknown, rostellar lobes very short.

Sarawak: Bidi (Brookes comm. Hewitt.)

Sarcolabium strongyloides Ridl. l.c. 141. — Stem elongate 1/10 in through. Leav. terete, recurved, 4-5 in. lg. ⅛ in thick, obtuse. sheaths 1 in. lg. ribbed & closely transversely wrinkled. Raceme 5 in. lg. flow. distant on pedicels ¼ in. lg. bracts very small ovate, acute. Sep. oblong, ovate, broad,

short, quite blunt. Pet. broader, almost orbicular ovate, all yellow with red brown centre 3/20 in. lg. Lip pale violet, lateral lobes linear, obtuse, short, apex spoon-shaped, mid-lobe hastate, narrow, basal lobes broad, rounded, larger than the side-lobes, tip narrow obtuse crenulate, thin, spur short, thick, blunt, slightly curved forward, tip retuse. In the centre of the midlobe near the mouth of the spur is a depression edged by an elevated V shaped ridge in front, in the centre of the depression a thin keel running down to form the spur partition, which is incomplete. Callus on the back of the spur curved, narrow, grooved, apex pubescent, mouth of the spur pubescent. Col. short, foot prolonged into the spur in a short process, anther broad with a narrow straight margin, pollin. semiorbicular with a very broad, thin, stipes, subquadrate with an acute tip, glandula fleshy, apparently orange coloured, saddle-shaped, base rounded, rostellar-lobes broad deflexed, quadrate. — Fl. Febr.

<u>Sarawak</u>: Kuching (Hewitt) — Allied to <u>S. Machadonis</u> Ridl.

142

Podochilus rupicola Ridl. l.c. 142. — Tall, stout, tufted plant with long stems 2 ft. lg. Leav. elliptic 2 in. lg. 1/2 in. wide, slightly narrowed at base obtuse at tip. Inflorescence 6–8 in. lg. pendulous, racemes 1 1/2–4 in. lg. slender, bracts small lanceolate, deflexed, acute, persistent. Flow. 1/10 in. lg. Upper sep. ovate, small, lateral large triangular. Pet. small oblong, mentum gibbous, wide. Lip oblong, apex bilobed, lobes rounded, base rounded with horse-shoe-shaped callus at the base & 2 parallel ridges on the limb. Fruit 1/2 in. lg. fusiform.

Sarawak: On rocks at Bidi (Ridl. N.11792); Batu (Hewitt)

143

Leucolaena ornata Ridl. v. singaporensis Ridl. l.c. 143.
Lip subquadrate with a median tooth hardly bilobed, limb white, base violet, rostellum quite absent, poll. free 4 with no disc, filament of anther much shorter.
Damp sandy woods on a stream bank at Stagmount Singapore — Fl. April.

<u>Oncidium dimorphum</u> Regel in Gartenflora XIX (1870) 2 (mit Fig. 4–6.)
Pseudobulbis oblongis, compressis, foliis 1–3 terminalib. oblongo-lanceolatis, obtusiusculis. Florib. paniculatis Sep. obovatis, concavis, obtusissimis. Pet. ovato-oblongis, margine crispis, sepala subduplo superantibus. Labello dimorpho; aut trilobo, lob. lateralib. patentissimis, suborbicularibus, lobo intermedio ovato-subrotundo, integro paulo minoribus, aut labelli integri lobis lateralibus minutissimis, dentiformibus; cristae tuberculis 3–5 carnosis. Columna basi in mentum oblongum producta, apice auriculis 2 oblongis carnosis apice gibbosis patentissimis, rostello subulato. Flores aurei, fusco-maculati. – Brasilia, St. Catarina

<u>O. laurifolium</u> Ldl. affine. Foliis acutis, sep. linearibus labelli lobo intermedio bilobo, cristae tuberculis plurimis florib. homogeneis facile [illegible] [cf. Fl. Bras. Orch. III, 367]



~~[illegible]~~

Pleurothallis yungasensis Rolfe in Mém. Torrey Bot. Club IV (1895) 259. — Stems slender, terete, about 1' high. Leaf oblong-lanceolate, acuminate, with subcordate base, 6-8 in. lg. 1¼-1½ in broad. Flowers fascicled from a little above the base of the leaf, pedicels slender, 2-2½ in lg. Dorsal sepal ovate, acute 7-9 lin. lg. 4-5 lin broad, lateral sepals connate, elliptical-oblong, acute 9-12 lin. lg. 6-8 lin. broad. Petals subulate-lanceolate, acute, base subcordate, 3½ lin. lg. 1 lin broad. Lip reniform-cordate obtuse or apiculate, denticulate, tricarinate, 2 lin broad Column short. — Yungas (Mig. Bang N. 459)

Belonging to the "Macrophyllae fasciculatae" & allied to P. rubberrima Ldl. a native of New Grenada & Venezuela but readily distinguished by the more distinctly cordate lip & the shorter & broader dorsal sepal.

Pleurothallis densifolia Rolfe in Mém Torr. Bot. Club IV (1895) 260. — Leaves oblanceolate-linear or subspathulate, obtuse, base attenuate into the short petiole, 1¼-1½ in lg.

1½-2 lin. broad. Scapes slender 3½-4 in lg. 6-8-flowered: pedicels slender 4-6 lin. lg. bracts triangular, acute with funnel-shaped base. 1/4 lin. lg. Dorsal sepal ovate-lanceolate, acuminate, concave at the base, 3 lin. lg. lateral ones connate, similar in shape but rather longer. Petals obovate-oblong, obtuse, membranaceous, 1 lin. lg. Lip entire, oblong, obtuse, tricarinate, 1¼ lin. lg. Column broadly winged, rather shorter than the petals.

Yungas (Mig. Bang N. 216)

A species belonging to the „Apodae caespitosae" & allied to the P. picta Ldl. a native of Brit. Guiana; but different in its narrower leaves, longer tails to the sepals & larger petals which are not spathulate.

Pleurothallis scabridula Rolfe in Mém. Torr. Bot. Cl. IV (1893) 260. — Stems erect slender, scabrid, leafy, 1½-2 in. lg. the sheaths with free ovate scabrid ciliate limb. Leaves elliptical-oblong, obtuse 2¼-4 lin. lg., 1-2 lin. broad. Racemes slender 1-1½ in lg. 5-8-flowered, bracts minute, pedicels slender 3 lin. lg. Dorsal sepal oblong-lanceolate

caudate, acuminate, 2 1/4 lin. lg., lateral sep. linear-caudate, 3 lin. lg. Petals lanceolate-linear acute, 1/2 lin. lg. Lip linear-oblong, 1/3 lin. lg. Column nearly equalling petals.
Songo (Mig. Bang N. 907)
Belonging to the section „Caulescentes" & allied to P. diptera Ldl. but less than half the size & more than twice as slender.

Stelis Bangii Rolfe in Mém. Torr. Bot. Club IV (1895) 260.
Stems 1 1/2 - 2 1/2 in. lg. clothed with 2 or 3 long tubular sheaths. Leaves linear-oblong, subobtuse, base attenuate, 2 1/2 - 4 in. lg. 5-9 lin. broad. Spikes solitary, 5-9 in. lg., bracts distichous, conduplicate, ovate, acuminate, 3-5 lin. lg. pedicels 1 1/2 - 2 lin. lg. Perianth 3 lin. in diam. lobes short, very broadly ovate, 7-nerved. Petals reniform-ovate, very obtuse 3/4 lin. in diam. Lip like petals, but slightly smaller.
Yungas (Mig. Bang N. 458)
Allied to St. triplicata Ldl. of the „Distichae" but readily distinguished by its narrower leaves & narrower & more acuminate bracts.
Stelis eurspatha Rchb. f. Yungas (Mig. Bang N. 653) ??

Stelis Brittoniana Rolfe in Mém. Torr. Bot. Cl. IV (1895) 261. — Stems 3 in. lg. Leaves linear-oblong, obtuse 2-4 in. lg. 5-7 lin broad. Spikes 1 or 2 from the axil (leaf) 3-5 in lg. bracts broadly ovate, acute, 1 lin. lg. pedicels a little longer than bracts. Perianth 3 lin. in diam. lobes elliptical-oblong, obtuse, 3-nerved. Petals broadly oblong truncate 1/4 lin. lg. Lip similar to petals but very obscurely 3-lobed.

Yungas (Mig. Bang N. 739)

Obviously allied to the Venezuelan S. lutea Ldl. though the spikes are frequently more than 1 from each leaf axil. The fact is Lindley's groups Monostachyae & Polystachyae cannot be retained, not being constant, even for the same species. The present plant may be distinguished from S. lutea by its narrower sep. & different bracts.

Stelis Rusbyi Rolfe in Mém. Torr. Bot. Club IV (1895) 261. — Stems 1½-3 in lg. Leaves oblong or linear-oblong, obtuse 2-4 in. lg. 5-11 lin. broad. Spike solitary 4-6 in. lg. bracts ovate lanceolate, acuminate, 3-4 lin. lg. pedicels 1½ lin. lg. Dorsal sepal ovate subacute. 5-nerved, 3 lin. lg. 2 lin broad, lateral

ones connate into a broadly ovate 9-nerved body 2½ lin. lg. 2 lin. broad, apex minutely bidentate. Petals very broadly ovate obtuse 3-nerved, 1.3 lin. lg. Lip similar but rather smaller with thicker nerves & somewhat auricled at the sides.

Yungas (Mig. Bang N. 332 = Rusby's N. 2758.)

A member of the sect. Dialissa allied to the Peruvian S. truncata Ldl. which however is distinctly scandent & has differently shaped petals & lip.

Liparis elata Ldl. Bot. Reg. t. 1175 — Yungas (M. Bang N. 608)

Liparis elliptica Reichb. f. in Walp. Ann. VI, (1861) 218 (M. Bang 656) Yungas.

Microstylis fastigiata Rchb. f. — Yungas (M. Bang N. 456 & 590)

Bletia Wageneri Rchb. f. — Yungas (M. Bang N. 455)

Elleanthus yungasensis Rolfe in Mem. Torr. Bot. Club IV (1895) 262. — Stem 1 ft or more high. Leaves ovate-lanceolate (acuminate, 3½–7½ in. lg. ¾–1½ in broad. Spikes oblong 3½ in. lg, bracts elliptical-oblong, subacute 6–8 lin. lg. Sepals lanceolate-oblong, acute, 4 lin. lg. ¾ line broad. Lip suborbicular, retuse 4 lin lg by nearly as broad with 1 prominent rounded callus 1 lin broad in the basal cavity. Column clavate 3 lin. lg. — Yungas (M. Bang N. 658)

Belongs to the section Calelyna & allied to E. conifer Rchb.f. a native of Peru of which however the callus is described as triangular & the plant evidently different in other respects.

Epidendrum ibaguense H.B.K. – Yungas (M. Bang N. 243)
" syringothyrsus Rchb.f. – Yungas (M. Bang N. 633)
" paniculatum R. & P. – Yungas (M. Bang N. 635)
" oreonastes Rchb.f. – Capi (M. Bang N. 763)
" brachycladium Ldl. Fol. – Vic. Cochabamba M. Bg. N. 743)
" lanipes Ldl. Fol. – Yungas (M. Bang N. 452)

Epidendrum yungasense Rolfe in Mém. Torr. Bot. Club IV (1895) 262. — Stem terete, erect, 1–1¼ ft high. Leaves oblong-lanceolate, acute, 1½–3½ in. lg, ¼–¾ in broad. Panicles lax with about 1 side branch, 2–2½ in lg. with 2 or 3 lanceolate sheaths at the base, bracts linear-lanceolate, acuminate 1–1½ lin. lg. pedicels slender 4–5 lin. lg. Sepals oblanceolate acute reflexed, strongly 3-nerved 3 lin. lg. ¾ lin. broad. Petals filiform, very slightly thickened at the apex, 3 lin. lg. Lip adnate to the column 3 lin. broad, 3-lobed, lateral

lobes broadly rounded, falcately acute, minutely denticulate; front lobe deeply bipartite with linear obtuse lobes. Column $1\frac{3}{4}$ lin. lg. — Yungas (M. Bang N. 572)

A member of the sect. Spathium & apparently most allied to the Peruvian E. parviflorum R. & P. but a stouter plant with shorter & broader leaves, shorter bracts & other differences.

Govenia boliviensis Rolfe in Mém. Torr. Bot. Club IV (1895) 263. — Leaves elliptical or elliptical lanceolate, subobtuse, 11 in. lg. $3\frac{1}{4}$–$4\frac{1}{2}$ in broad, petioles 9–10 in. lg. Scape 14 in. high, few-flowered, bracts ovate-oblong, subobtuse 3–4 lin. lg. pedicels 5 lin. lg. Dorsal sepal broadly oblanceolate, acute 7 lin. lg. lateral ones falcate-oblong, subacute 4 lin. lg. Petals obovate-oblong, somewhat oblique, acute, 4 lin. lg. $2\frac{1}{2}$ lin. broad. Lip ovate, acute, submembranaceous with 3 slender, obtuse keels, 3 lin. lg. nearly 2 lin. broad. Column clavate $2\frac{1}{2}$ lin. lg. — Yungas (M. Bang N. 609)

Allied to the Peruvian G. tingens P. et E. but the lip scarcely half the size in which respect it approaches G. Gardneri Hook. though the lip is not nearly so membranaceous.

Zygopetalum intermedium Lodd. v. Peruvianum Rolfe. in Lindenia IX t. 418. — Yungas (M. Bang N. 453)

Hylobium varicosum (Rchb.) Rolfe — Yungas (M. Bang N. 573)

Lycaste macrophylla Lindl. — Yungas (M. Bang N. 454)

Maxillaria nervosa Rolfe in Mém. Torr. Bot. Cl. IV (1895) 263.
Rhizome creeping, clothed with broadly ovate, obtuse, striate somewhat imbricating sheaths. Pseudobulbs 1/2–3/4 in. distant, oblong, subcompressed, 2-leaved. Leaves linear-oblong, emarginate, 1 1/4–2 in. lg. 2–3 lin. broad, peduncles 1 1/2–1 3/4 in. lg., clothed with about 6 or 8 somewhat imbricating bractlike sheaths; bracts oblong-lanceolate, acute 5–6 lin. lg., closely striate-nerved & subcoriaceous. Petals linear-lanceolate, acute or acuminate, in texture like the sepals, 4 lin. lg. Lip obscurely 3-lobed, 3 lin. lg. lateral lobes erect, obtusely rounded, front lobe reflexed, lanceolate, acute; crest linear, fleshy, equalling lateral lobes. Column clavate 2 1/2 lin. lg.
Yungas (M. Bang N. 457). Brazil, Rio d. Jan. (Glaziou N. 11612, 20513) Minas Geraës (Glaziou N. 20512) Organ Mts. (Miers).

Near M. acuminata Ldl. but a far smaller plant in every respect.

Camaridium longibracteatum Ldl. – Yungas (M. Bg. 478)

Camaridium boliviense Rolfe in Mém. Torr. Bot. Cl. IV (1895) 264. – Stems erect, somewhat elongated, leafy. Pseudobulbs 1–1½ in. distant, lanceolate-oblong, ¾–1 in. lg. apex 2-leaved, base about 4–6-leaved. Leaves erect, linear, obtuse, unequally bidentate, 2–3½ in. lg. 1–1½ lin. broad, their bases broader, sheathing & imbricating. Flowers axillary, solitary, peduncles but little exserted from sheaths. bracts lanceolate, acute, 5–6 lin. lg. Sepals ~~ovate~~ oblong, acute, 5 lin. lg. Petals linear-oblong, 5 lin. lg. Lip linear-oblong, acute, entire, with a rather ~~large~~ obscure oblong callus in the centre. Column clavate, 3 lin. lg. – Yungas (M. Bang N. 636)

Allied to C. arbuscula Ldl. & C. Lawrenceanum Rolfe & about intermediate them in habit.

Dichaea hamata Rolfe in Mém. Torrey Bot. Club. IV (1895) 264. – Stems erect somewhat branched below, 5–7 in. lg, leafy. Leaves distichous, lanceolate-linear, acute, somewhat recurved, ¾–1

in. lg. Flowers axillary, slightly exserted from leaf sheaths, bracts ovate acuminate 2 lin. lg. Sepals ovate-oblong, acute, 2 lin. lg. Petals rather smaller than the sepals, but otherwise similar. Lip as long as petals, basal half cuneate, apical half as broad as the lips length, apex broadly rounded & apiculate, obscurely denticulate & terminating behind on either side in a sagittate appendage, crest absent, but base of lip rather fleshy. Column very short. Fruit 2-2½ lin. lg. setose-echinate. — Yungas (M. Bang N. 692)

Allied to D. graminifolia Ldl. The lip is very curious, being somewhat hooked on either side & anchor-shaped.

Ornithidium giganteum Ldl. — Capi (M. Bang N. 764)

Odontoglossum rigidum Ldl. — Vicin. Cochabamba. (M. B. N. 744)

Oncidium Rusbyi Rolfe in Mém. Torr. Bot. Club. IV (1895) 265. Leaves linear-lanceolate, acute, 15 in. or more lg. Panicle much elongated, branches 2-5 in. lg. flexuose, bracts broadly triangular-ovate, subobtuse, conduplicate, 2½ lin. lg. pedicels 8-10 lin. lg. Sepals unguiculate, acuminate,

undulate, dorsal one 3½-4 lin. lg. with ovate-oblong limb; laterals 5-5½ lin. lg. spreading, with linear-oblong limb, unguis united for a short distance at the base. Petals unguiculate, 3-3½ lin. lg. limb ovate-oblong, acuminate, undulate. Lip entire, 3½ lin. lg. by nearly as broad, broadly bulliform-ovate, sides somewhat reflexed; apex suddenly attenuated, triangular, recurved; crest large, 5-lobed, the 3 terminal lobes subequal. Column 1½ lin. lg. stout, apex somewhat reflexed; wings short, broadly rounded. — Yungas (Mig. Bang N. 460)

Belongs to the "Microchila cirrhifera" & is allied to O. Tralla Rf. though different from every other in the shape of the bracts.

Brassia thyrsodes Rchb. f. — Yungas (M. Bang N. 607)

Sobralia violacea Ldl. — Yungas (M. Bang N. 391 a. 576)

Altensteinia Weddeliana Rchb. f. — Talca Chugiaquilla (Mig. Bang N. 819)

Altensteinia boliviensis Rolfe in Mem. Torr. Bot. Club IV (1895) 265. — Leaves lanceolate, acute or subacute, 6-10 in. lg. 1¼-1½ in broad. Scapes 8-10 in. lg. Spikes 4-5 in.

lg. dense, bracts ovate or ovate-lanceolate, acute 4-6 lin. lg. Sepals lanceolate-oblong, obtuse, 3 lin. lg. Petals linear, obtuse, 3 lin. lg. Lip elliptical, obtuse, the margin fimbriate in numerous short appendages, 4 lin. lg. Column 2½ lin. lg. — Yungas (M. Bang N. 820)

Allied to A. fimbriata H.B.K. but a less vigorous plant with distinctly smaller flowers. —

Spiranthes Bangii Rolfe in Mém. Torrey Bot. Club IV (1895) 265. — Roots fascicled stout. Leaves cauline lanceolate, acute, 4-6 in. lg., 3/4-1 in broad, gradually reduced upwards into the bracts. Scapes 1¼-2½ ft. lg, spikes 4-9 in. lg. bracts lanceolate or ovate lanceolate, acuminate, 5-10 lin. lg. Dorsal sepal oblong-lanceolate, subobtuse, concave, pubescent, 3½ lin. lg., lateral ones lanceolate, subacute. 3½ lin. lg. Petals lanceolate, subobtuse, equalling the dorsal sepal, with which they form a cucullate hood. Lip somewhat ~~[illegible]~~ recurved, lanceolate-oblong, obtuse, crispo-undulate, its base united to the sides of the column & somewhat saccate, 3½ lin. lg. Disc

somewhat verrucose-reticulate. Column 1½ lin. lg. longo (Miz. Bang N. 920) – Allied to S. plantaginea Ldl.

Spiranthes yungasensis Rolfe in Mem. Torrey Bot. Club. IV (1895) 266. — Roots fascicled. Leaves cauline, oblong-lanceolate, acute, 3 in. lg. 8–10 lin. broad, gradually reduced upwards into bracts, scapes pubescent, 1¼ ft. lg, spikes 3 in. lg. bracts linear-lanceolate, acuminate 8–10 lin. lg. Sepals pubescent, dorsal one oblong-lanceolate, subacute, 5 lin. lg., lateral ones lanceolate-acuminate 5 lin. lg. Petals lanceolate, acute, the inner margin appressed to the dorsal sepal & thus forming a cucullate hood. Lip somewhat recurved, oblong, obtuse, somewhat undulate, 4½ lin. lg, margins united to the column, base adnate to ovary, saccate. Column 3½ lin. lg. – Yungas (M. Bang N. 431) Closely allied to Sp. hirta Lindl.

Habenaria hexaptera Ldl. – Yungas (Miz. Bang N. 582)
" macrolosa Ldl. – Vic. Cochabamba (M. Bang N. 1239)

<u>Bulbophyllum (Bulbophyllaria) mirabile</u> Hallier in Ann. Jard. Bot. Buitenz. XIII (1896) 316 t. 28 fig. 1a–d.
Pseudobulbi dense congesti, breviter conici, 2,5–3 cm lgi, sordide virides, glabri, nitiduli, monophylli, cataphyllis arcte appressis vestiti, denique nudi. Petiolus sulcatus, 3–5 cm lgus, 5 mm crassus, sensim in laminam, parum recurvatam, late oblongam, apice subemarginatam, crassam, elastice coriaceam, superne viridem, subtus pallidiorem, minute argenteo-punctatam dilatatus; lamina ad 2 dcm lgta, 8,5 cm lata. Scapus pendulus, multiflorus, pallide viridis maculis minutis lilacinis dense punctatus, teres glaber, apicem versus sensim incrassatus, vaginis paucis arcte appressis vestitus, cum spica ad 30 lgus, rhachidis pars basalis 9 mm crassa, apicem versus attenuatus, bracteae minutae, triangulae, pedicellis appressae, vix 2 mm lgae. Flores parvi, <u>bracteolis destituti</u>, dimorphi spicae partis basalis flores androgyni cernui, prae antheris in rhachidis sulcos reflexi, extus sordide viridula lilacino-guttata. Sepala breviter ciliata, obtusa, intermedium lineare, intus viridulo-album, lateralia multo latiora

oblonga, secus columnae pedē decurrentia, apice divergentia, intus saturate violacea, sordide albido-guttata. Petala multo breviora, linearia, apice parū divergentia, glandularū instar tumida, pellucido alba, basi pallide flava, pellucide maculata, pilis longis violaceis barbata. Labellū in pede columnae flexibile, trilobū, lobis lateralib. minimis, ungue pilis saturate violaceis hirsuto suffultū, lobus intermed. linguiforme, crassū, triangulū, violaceū, pilis saturate violaceis hirsutū. Col. albida, per brevis, intus macula atroviolacea ornatur. Flores ceteri (masculi) transverse erecti, brevissime pedicellati, minores, magis aperti, sepala reflexa, multo parcius guttata quā in florib. basalib. intus pallidiora, labellū decurvatū multo majus et longius pallidiusque et multo parcius hirsutū, inter lobos non tuberculatū neque lucidū. Flores androgyni praeter ovariū 5 m̄ longi, 7 m̄ diam. transverso. — Westborneo (Sintein. Samlas)

Diagnose stark gekürzt nach Halliers sehr weitschweifigem Orig. Text. — Siehe folgenden Text.

166.



Bulbophyllum
mirabile Hallier

Didymoplexis Griff and the elongation of the pedicels of D. pallens after flowering by W. Botting Hemsley in Journ. Linn. Soc: XX (1884) 308 t. 28.

Hemsley behandelt die Frage der Synonymie u. kommt zu folgender Darstellung:

1. Didym. pallens Griff. = Leucorchis sylvatica Bl. = Apetalon minutum Wight = Arethusa ecristata Griff. = Epiphanes pallens Rchf. = Arethusa bengalensis herb. hort. bot. Calcutt.

2. Didym. micradenia Hemsl. = Epiphanes micradenia Rchf.

Ausserdem erwähnt er die halb unterirdische Wachstum der ganzen Pfl. u. die auffallende Verlängerung der fruchttragenden Blt. stiele. s. Abb.



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Dichaea diandra Rchb. f. in Bot. Ztg. XXXV (1877) 41.
Caulibus tenuibus, uno ramosis, foliis egregiis distichis laminis perpendicularib. ligulatis apiculatis, apiculo recurvo, racemis 1-floris, folia longe excedentib., bractea spathacea ovarium laeve subaequante. Sep. tep. q. triangulis trinerviis, sepalis extus minute verrucosis; labello ab ungue perbrevi humerato rhombeo acuto 5-nerviss. Columna diandra, antheris in mediana oppositis, polliniis caudicula glandulaque destitutis, rostello nullo, limbo stigmatico inferiore antheri haud bene prominulo, post antheram ampliato. – Costa Rica (Endr.)
Gehört zur Abteilung der Echinocarpae.

Sobralia Goetheana. Endr. et Rchb. f. in Bot. Ztg. (1877) 43.
Sesquipedalis gracilis, aff. S. Bletiae Rf. vaginis servosis rugulosis, fol. cuneato-lanceolatis longe acuminatis, dense nervosis, florib. paucissimis, racemo terminali hysteranthio, sep. triangulis, tep. labelloque panduratis obtuse acutis, lamellis hyalinis 4 in

labelli bari, columna clavata minuta. – Flores illis S. Bletiae aequales, perigonii phylla interna violaceo-purpureo-guttata – Heimat?

Diese beiden Diagnosen stellen wohl kaum neue Arten, ~~als~~ sondern eher Bildungsabweichungen dar; die Sobralia zeigt entschieden zur Pelorienbildung. – K.

Notylia lyrata S. Moore in Trans. Lin. Soc. 2 Sér. IV (1895) 477 (t. 32 fig. 4–10.)

Pseudobulbis parvis oblongo-linearibus a vaginis supremis superatis. foliis coriaceis, nunc linearibus nunc lineari-oblongis obtusiusculis; pedunculis gracilibus folia ~~superantibus~~ subaequantibus, vaginis 2–3 distantibus instructis; sepalis lateralibus ad 2/3 connatis, apice fere sectis; labelli breviter unguiculati lamina lyrata, margine plana, crista laminatā editā dimidio proximali proferente, columna apice recurva. – Fl. Octobri.

Rio dos Bugres (Sp. Moore N. 438)

Pseudobulbi vix ultra 1 cm longi, sicci 3 mm lati, compressi vaginis ad 1,5 cm longis occulusi. Folia imparia, maxim 9 cm, minima

4.5 ad 5.5 cm lga, 7-13 mm lata, basi ad 3 m̄ coarctata, in sicco corrugata. Racemi nutantes, pluriflori, deorsū vaginati; vaginis ovatis, acuminatis, basi amplexicaulibus, 7 cm longiss. Bracteae modicae. Pedicelli 3 m̄ lgi patuli v. decurvi. Flores circ. 5 m̄ diam. dilute crocei. Sep. linearia, acutiuscula, 4.5 m̄ lga, postic̄ quā lateralia paulo brevius. Pet. lineari-lanceolata, acuta, sepal. lateralib. parū breviora. Labelli sep. lateralia aequantis unguis 1 m̄ longus, lamina 3 m̄ lga, e basi levissime cordata, sensim angustata, rursū subito ampliata. apice obtusa. Col. a petalis fere 2plo superata, antice sulcata, basi ipsa incrassata, rursū subito recurvata, antherae vix 2 m̄ lga, appendicula membranacea rostellū amplectens.

Juxta Not. Barkeri Lindl. a qua abhorret praeter alia florib. minorib., sep. lat. apice fere sectis, labelli lamina dispar.

Notylia bisepala Sp. Moore in Trans. Lin Soc S. 2 IV (1895) 478.

Pseudobulb. oblongis, superne angustatis, vaginis plerūque quā ipsi brevioribus cinctis; fol. lineari-oblong. v. ovato-

oblong. obtusis, pseudobulbos excedentib. subcarnosis, pedunculis folia excedentib. v. subaequantib. deorsū vaginis 3-4 laxis distantib. instructis; sep. lateralib. apice ipso solummodo liberis, labelli quā sepala distincte brevioris, longe unguiculati lamina e basi truncata, pubescente, triangulari-acuminata, obscure callosa v. omnino ecallosa, margine serrulata, columna fere recta.

Iarte Ste. Cruz, itaque in silva primaeva inter Sta. Cruz et Campos de Tapirapuan. Sept. Oct. (Sp. Moore 387, 511)

Pseudobulbi ad 2 cm lgi compressiusculi in sicco longitudinaliter alte striati. Fol. maxima inaequalia, majora ad 14 cm lga, minima nec ultra 5 cm, pleraque 1.5-2.3 cm lata, in sicco punctis albidis leviter elevatis conspersa. Racemi nutantes v. ascendentes, pluriflori, puberuli, vaginae ovatae acuminatae 6-7 m̄ lgae, bracteae modicae, pedicelli 6 m̄ lgi, erecti v. curvati, minute puberuli. Flores luteo-virides 7 m̄ diam. Sepalorū lateralium lamina sep. posticū lanceolatū acutiusculū excedens, ~~[illegible]~~ ovato-cuspidata, apice brevissime bifida, 6.5 m̄ lga. Pet. sepalorū lateralium laminā aequantia, lineari-lanceolata, acuminata.

Lab. totū 4.5 m̄ lgū, unguis superne sensim laxatus 1.5 m̄ lgus, obscure callosus v. ecallosus; lamina basi 2 m̄ lata. Columna quā unguis labelli vix dimidio longior, antice excavata, ima basi dilatata, anthera appendicula rostellū amplectens.

Non dubito quin spectet ad Not. Huegelii Rf. quae fide, quae fide beat. autoris eadem est ac Not. tridactae Ldl. Planta Mexicana vero florib. majorib. et petal. falcat. neque rectis nec acuminatis et labelli angustioris lamina manifestius callosa gaudet.

<u>Dichaea cornuta</u> Sp. Moore in Trans. Lin. Soc. 2 S. IV (1895) 479 t. 32 fig. 1-3. — Caulib. erectis. fol. media oib. linearib. obtusis. pedunculis folia subaequantib. sep. + pet. lanceolatis acutis, his quā illis paullulū brevioribus, labelli longe unguiculati lamina rotundata, brevissime cuspidulata, basi longiuscule incurvo-cornuata; columnae pede brevissimo, clinandrio breviter lobulato, capsulâ oblongâ laevi. - Fl. Octobri. Adripā flum. Boarinho. (Sp. Moore N. 459)

Caulis ad 22 cm lg. modice foliosus. Foliorū vaginae ±1 cm lgae, cauli satis arcte applicatae. laminae circ. 2 cm lgae & 4 m̄ latae, basi parū coarctatē. Pedunculi medii ipso sub flore paullulū incrassati. Flores circ. 1 cm diam. albidi, purpureo-maculati. Sep. 8,5 m̄ lgi vix 3 m̄ lati. Lab. 6 m̄ lgū, unguis late linearis, basi levissime angustatus, 3,5 m̄ lgus. lamina margine undulata, incurva, 4,5 m̄ lata, cornua ejus pro genere sat elongata, falcato-~~semi~~circulata 2 m̄ lga. Capsula 1 cm lga, 5 m̄ ~~diam.~~ lata. subaureps, omnino glaber. Poll. ignota.

Species habitu & caps. glabris c. D. graminoidi Lindl. satis congruens, florib. vero disparib. gaudet.

<u>Physurus Oreadum</u> Sp. Moore in Trans. Lin. Soc. 2. Ser. IV (1895) 479. — Caule ascendente, folioso, deorsū vaginis foliorū evanidorū instructo. Fol. lanceolatis v. ovato-lanceolatis acuminatis, basi gradatim coarctatis, siccitate subcoccentib. brevi-petiolatis, petiolo subito vaginato-dilatato, spica densiflora, anguste lineari, folia 2plo excedente, bracteis lanceolatis, acuminatis,

pedicellis 2plo longioribus. Floribus mediocribus, sep. sub erectis, lanceolatis obtusis, sepalo postico quam lateralia paullulum longiore; petal. sepala subaequantibus lineari-oblanceolatis, obtusis, cum sepalo postico in galeam conniventibus, labelli longe clavellato-calcarati limbo lyrato, lamina terminali rotundata, vix lunata.

In silva primaeva inter S. Cruz & Campos de Tapirapuan. Fl. Septembri. (Sp. Moore N. 373)

Tota planta circ. 40cm alta. Caulis crassiusculus, siccitate nigricans & usque ad 3,5mm latit. compressus, puberulus, e nodis infimis radices sat validas fere simplices dense piliferas emittens, internodia plerumque 2 ad 3cm longa. Foliorum vaginae 1.2-1.5cm lgae. circ. 1cm latae, ad 6 ad 7mm circa caulem continuae, tenuiter membranaceae, obsolete puberulae, vix decolores. Foliorum lamina supra vaginam ad 1.5cm petiolata, petioli 2-3mm lati, juveniles albido-ciliati mox glabri, lamina ipsa circ. 11cm lga, 2.5-3.5cm lata membranacea, fere a basi 3-(5-)nervis, ~~pil~~ puberula, deinde glabra. Spica 18cm lga, 2cm lata, deorsum

vaginis paucis laxe amplectentib. obtecta, pubescens. bracteae fere 1 cm lgae, uninerves. pedicelli recti, vix 5 m lgi, ovario duplo breviores. Sep. 5 m lga. 1,3 m lata, ad 3 m decurrentia. Labelli ad 1,5 m in columna adnati limbus 3,5 m lgus, infra medium 2 mdatus, hinc fere ad 1 m attenuatus, lamina terminalis 2,5 m lata, minute ciliolata; calcaris pars libera 8 m lga. leviter clavata, apice brevissime acutata. pollen sectile, caps. oblonga 8 m lga.

Arcte affinis P. densifloro Lindl. mihi cognito modo icone in herb. Lindl. ~~abhorret a nostra specie~~ quae speciē adumbrat nostra a stirpe abhorrentē de habitu humiliore spica abbreviata, florib. longius pedicellatis, labelli lamina terminali sagittata, petalis latiorib., calcare ovario longiore in eo longius adnato. Habitus et folia plantā a cl. Glaziou lectā (N. 12204) in mentē revocant, sed spica major necnon sepala et labellū dispaia.

Corallorhiza involuta Greenm. in Proc. Amer. Acad. XXXIII (1898) 474. — Aphyllous, glabrous throughout, the entire plant purplish, roots coralloid; stems 1–2½ dm high, provided with 3 sheathing obtuse bracts, raceme few–several flowered, floral bracts short, perianth purple, about 12 mm in diam. sepals oblong somewhat narrowed toward the apex 6 mm lg, about ⅓ as broad, 3-nerved, the lateral sepals a little ~~longer~~ unequal a their bases forming a slight gibbosity, petals oblong obtuse, 3-nerved, nearly equalling the sepals; labellum deep purple with a yellowish base, oblong, thickened, 6 mm lg, about one half as broad with an obtuse blunt, almost truncate apex provided near the base with a thick cushion-like body, margins strongly involute; clinandrium somewhat arched about 3 mm lg. —

Under oaks on the summit of the Sierra de San Felipe, Oaxaca altit. 2925 m (Pringle n. 5874)

Corallorh. mexicana Lindl.

Sierra de S. Felipe in 2750–3000 m (Pringle n. 4690), ebenda gesammelt von Conzatti u. Gonzalez Hn. 461. Genauere Beschreibung statt der zu kurzen Lindleyschen. — Plant glabrous throughout, aphyllous,

Stems from an ascending rhizome, 3-7 dm high purplish provided with 2-4 sheathing obtuse or acutish somewhat scarious nerved bracts; racemes manyflowered, rhachis subangulate, floral bracts small, scarious; perianth 1.5 cm broad yellowish white or purplish in the dried state, pedicellate, at first erect, later reflexed; the persistent sepals about 7 mm lg, nearly 3 mm broad, obtuse, 3-nerved; the upper oblong, the lateral oblong-lanceolate, slightly oblique, prolonged a the base into a short gibbous adnate spur; petals oblong obtuse, often somewhat falcate, obtuse, rounded or sometimes emarginate, the median + lobe obovate-cuneate, subtruncate or retuse, entire, occasionally irregularly crenate, bilamellate a the base on either side of the midnerve, between the lateral sinuses, rather densely papillate on the upper surface, 5-nerved from the branching of the 2 lateral nerves just above the sinus on either side, clinandrium somewhat arched, about 5 mm lg. capsule oblong obovoid, 12-17 mm lg, reflexed.

A species stated by Lindley "very like C. multiflora" but differing in the lobing of the lip, the papillate character & the venation of the same, as well as the shorter lamellae.

178.

Corallorhiza Pringlei Greenm. in Proc. Amer. Acad. XXXIII (1898) 475. — Glabrous throughout, aphyllous. Stems slender 1-3½ dcm high, more or less scaly-bulbous at the base, caudex provided with 1-3 sheathing bracts; racemes rather few-flowered, floral bracts minute, shorter than the pedicels, the latter 2-3 mm in length, flowers small 5-8 mm in breadth when fully expanded; sepals oblong-lanceolate, obtuse, inconspicuously 3-nerved, 3-4 mm lg. about 1 mm broad, exceeding in length the obtuse slightly broader lateral petals, both sepals & petals marked with a semi-translucent oblong punctation; lip white variegated with purple ovate-rotund or sometimes slightly obovate-rotund, narrowed at the base into a short claw, strongly emarginate at the apex with an irregularly crenate margin, 3-5-nerved, bearing 2 somewhat diverging lamellae about 1/3 distant from the base; clinandrium short thick, about 2 mm lg. capsule oblong-elliptic, 7 mm lg. reflexed on slender pedicels.

Oaxaca, on shaded banks by Las Sedas (Pringle Novemb. n. 5804) & on the Sierra de S. Felipe altit. 2600 m (Pringle Dec. n. 6295)

Distributed in 1895 as C. mexicana Lindl. from which it is

distinguished by the more slender habit, smaller flowers & by the well-marked characters of the lip.

Aus: Index seminum horti Petropolitani (1868) p. 80.

Pithaca tigrina hort.

Rchb. fil. in Schiller Cat. Orch. pag. 27. – Dichaea? [Pityphyllum] procumbens hort. – Caule 2–4 pollicari, ramoso, foliis imbricato-distichis, cauantibus [~~caudantibus~~ correction: "it"], ovato-oblongis, circiter 1 c. m. longis, subcarinatis, ex apice obtuso reflexo mucronatis, excluso apice minutissime denticulato integerrimis, subtus sub lente glanduloso-punctatis; pedunculis axillaribus, solitariis, circiter 1 c. m. longis, basi spatha minuta membranacea suffultis, ad floris dorsi basin bractea ovato-subrotunda acuminata germen circiter aequante vestitis; flore 12 mm. in diametro, sepalis petalisque ellipticooblongis, lutescentibus punctisque coeruleis pictis, labello coeruleo alboque fasciato, ungue cuneato, lamina triangulari-sagittata; columna brevis, flavida, basi auriculata, auriculis rostroque coeruleis ciliatisque. Rgl.

(Bot. Centr. bl. XVIII (1884) 19.)

Cymbidium Boweri F. v. Müller in South. Science Record Aug. 1883

Leaves lax, much elongated, narrow-lanceolar, upwards flat; racemes very long, with numerous flowers, bracts much shorter than the flower-stalklets; calyces large, their lobes outside brownish-green, inside dull dark reddish-brown at the margin yellowish; the upper of the outer lobes cuneate-obovate, the 2 lower cuneate-elliptical, the 2 inner cuneate-oblong; labellum about 1/3 shorter than the other calyx-lobes, in outline almost orbicular, towards the summit divided into 3 very short lobules, pale yellowish-green, streaked by darker flabellate veins, above towards the base & centre short downy & along the median line up to the centre raised by a prominent narrow 2-furrowed plate, the middle lobule almost semi-orbicular, yellow; the lateral lobules nearly semiovate but little shorter than the middle lobule.

On the island „Mandoliana" of the Solomon-Group (Lieut. Goldfinch)

This species differs already from Cymb. canaliculatum in larger, laxer, less channelled & more chartaceous leaves, in larger & more copious flowers & in a more downy labellum with very much shorter lobules.

A.

A.

Spiranthes peruviana Presl Rel. Haenk. I (1830) 93. — Radix tuberib. oblong. pollic. longioribusve. Fol. radicalia 2pollicaria, lanceolata, acuta, nervosa, reticulatim venosa, in petiolū fere pollicarē basi vaginante attenuata. Scapus erectus 8-pollicar. vaginatus. Spica ultrapollicaris subtortilis, bract. lanceolatae, acutae membranaceae, flore c. ovario aequilongae v. paulo longiores. Flores nutantes magnitudine S. autumnalis. Perianthiū generis. Lab. ovatū glabrū crenatū apice deflexo sed nec minime crispū. Ovar. tenuiter pubescens apice obliquū.

Microchilus major Presl. l. supra c. I. 94 (Symbolae I, 26 t. 15.) = Physurus Preslii Ldl. Orch. 501. — Rhizoma repens, horizontale, articulatū, radices e articulationes orientes simplices longissimae, dense villosae. Scapus pedal. erectus inferne foliatus, superne vaginatus pubescens. Fol. petiolata, lanceolata acuminata subobliqua glabra, in petiolū dilatatū basi vaginantē attenuata ½ pedal. longioravc maxima 2 poll. lata, vaginae membranaceae pellucidae acuminatae. Spica 5pollicar. linearis, densa, bract. lanceol. acumin. flore sub longiores. Flores nutantes parvi. Sep. 2 lateral. lineari-lanceol. obtusa 1-nervia.

superius oblongū erectū 3nerve extus carinatū apice acute 3-dentatū, qui dentes sepalorū conglutinationē indicant. Lab. sepalis paulo longius lineare apice dilatatū & in lobos 2 obtusiusculos divaricatos denticulo minuto interstinctos divisū. Calc. pendulū rectū saccato-scrotiforme ovariū longitudine fere aequans. Anth. sessilis acuminata. stigma integrū ovariū oblongū pubescens

C.

C.

Microchilus minor Presl. Rel. Haenk. I (1830) 94. Synt. I. 27 / t. 16.
Physurus minor Lindl. Orch. 503. — Scapus pedal. erect. pubescens vagin. membranac. acut. nervos. glabr. distantib. vestitus basi foliosus. Fol. 2 poll. lga, 14 lin. lata, elliptica acuminata glabra, nervis 5 crassiorib. et 3 tenuiorib. percursa, transversim venosa, basi in petiolum dilatatum vaginantem attenuata. Spica 3 pollicar. linear. bracteae ovato-lanceolatae acuminatae membranaceae erecto-patentes florem subaequantes. flores minuti nutantes. Sep. 2 lateral. ut in M. majore lin.-lanceolata obtusa, superius erectum oblongum extus & basi carinatum, 3nerve, apice acute tridentatum. Lab. sepalis paulo longius, sub pendulum ex angusta basi sensim latius, apice in lobos 2 obtusiusculos divergentes nullo denticulo interstinctos dilatatum, calcar pendulum scrotiforme rectum ovario 2plo brevius. Anth. sessilis acuminata apice antorsum incurva. stigma apice in lobos 2 acutos divisum, ovarium oblongum incurvum pubescens.

E.

F.

Ophrys pubescens Presl. Rel. Haenk. I (1830) 91 = Cranichis Lindl. ?
Spica laxiuscula, bracteis ovario longiorib. sep. 3 exteriorib. scabris ciliatis, labello integro ovato concavo-carinato ovariis rhachique glanduloso-pubescentibus.
In Peruvia ad Huanoco.
Radices tuberosae, tuberib. lineari-oblongis pollicarib. Scapus fere 4 poll. cav. sulcatus glaber, basi foliorum superne vaginis ovatis obtusis membranaceis vaginatus. Fol. oblongo-lanceol. obtusa nervosa glabra. Spica 1½ pollic. laxa fere 12 flora. glanduloso-pubescens. Flor. breviss. pedicellati, bract. ovato-lanceolatae acutae, membranaceae, pubescentes ovario duplo breviores. Perianthiū flavescens? sepalis 3 exteriorib. ovatis acutiusculis ciliatis, extus scabris, 2 lin. lgis, 2 interiorib. minorib. glabris tenerioribus. Lab. obovatū obtusū, margine apice versus repandū, integrū, concavo-carinatū. Gynost. et anthera generis. ovariū glanduloso-pubescens.
Cf. Lindl. Gen. & Sp. 450.

Ophrys parviflora Presl. Rel. Haen. I (1830) 92. = Cranichis? Lindl. Gen. & Sp. 450. — Spica laxiuscula, bracteis ovario aequilongis, sep. 3 ~~ex~~ in ferioribus angustioribus extus puberulentibus lab. integro ovato concavo-carinato.

In montanis Peruviae ad Huanoco.

Radix tuberibus oblongis. Scap. 9-pollicar. erectus, inferne foliosus, superne vaginatus, vaginis apice foliaceis. Fol. lanceolata obtusiuscula glabra nervosa. Spica ultrapollicar. anguste lanceolata laxiuscula, bract. lanceolatae membranaceae ovarium longitudine aequantes. Flores parvi vix 1½ lineares. Perianthii sep. 2 exteriora superiora ovata acutiuscula, extus leviter puberulentia. 2 interiora & inferius lineari-lanceolata acutiuscula glabra, praecedentibus 2plo angustiora. Lab. ovatum, integrum concavo-carinatum glabrum laeve. Gynostem. erectum, labello paulo magis quam 2plo brevius, bidentatum. Anth. gynostemio longitudinaliter adnata. loculis longitudinaliter adnatis, ovarium tenuiter pubescens. Color florum ?

13

I. K.

Ionopsis pusilla 44

HABENARIA MACOWANIANA, *N. E. Br.*, *n. sp.*

A small species, growing 6—8, or perhaps 9 inches high, and closely leafy throughout. Leaves $1\frac{1}{4}$—2 inches long, $\frac{1}{4}$—$\frac{1}{2}$ inch broad, lanceolate acute, ascending. Flower spike occupying more than one-third of the entire length of the stem, dense, bracteate. Bracts lanceolate acuminate, the lowest $\frac{3}{4}$ inch long, the upper gradually smaller, mostly longer than the flowers, which are small, and unattractive, being about $\frac{1}{4}$ inch in expanse, with ovate subacute sepals and petals, a fleshy three-lobed lip, and a clavate spur about one-tenth of an inch long.

This plant was discovered by Professor MacOwan in November, 1865, near Grahamstown, and it sppears to be exceedingly rare, as he only had but one specimen, which he very generously presented to Kew. And now Mr. J. O'Brien has given another specimen to Kew, collected at the same place, and informs me that he has the plant in cultivation. I have, therefore, thought it desirable to place it on record, as it is somewhat remarkable that so rare a plant of this kind should so soon be under cultivation. Professor MacOwan's specimen was originally described by Reichenbach as Brachycorythis Macowaniana, but the presence of a spur removes it from that genus, and structurally I do not find that it differs from Habenaria. *N. E. Brown, Kew.*

From the "Gardeners' Chronicle," Feb. 9, 1888, p. 168.

L.

Liparis Swenssonii 58.
Lycaste Forrestii 63.
Luisia Beccarii 70.
" valida Rf. 92.
Lockhartia ludibunda 100 b
Liparis Downii Rchb. 104.
Lueddemanniana ornata Rchb.
v. singaporensis 149.
Liparis elata
" elliptica } 155.
Lycaste macrophylla 158.

O.

Odontoda Keatonensis 3.
Odontogloss. Lecanum 4.
Orchis Roborowskii 10.
" cyclochila 11.
" satyrioides Stev. 96.
Oberonia aurantiaca 18.
Oxyceras ovata 49.
Orchis monophylla 94.

P.

Pleurothallis cardiothallis 100.
Platyclinis minima 109
" minor Ridl. 108
Pholidota grandis Ridl. 111.
Plocoglottis borneensis 113.
" parviflora 114.
Platyclinis Bartoni 127.
Plocoglottis hirta 141.
Pleurothallis yungasensis 151
" densifolia 151
" scabridula 152
Physurus Oreadum 173.

P. A.

Paphiopedilum villosum 2
Platanthera interrupta 14
" ussuriensis 15
Pogonia bicolor Bl. 28.
" satyrioides Rf. 96.
" lenteisensis B. Rodr. 32.
Pleurothall. lithophila 42.
Ponera geraensis 45.
Phalaenopsis Rosenstromii 61.
Pterostylis Baptistii 65.

R.

Renanthera annamensis 1.

S.

Sobralia Goetheana Rf. 168.
Spiranthes peruviana 181.
Sarcolabium rubescens 2.
" Angraecum 23.
" secundiflorum 25.
" costinatum 26
Stenorhynchus venustus 34
" canterae 33.
" taquaremboensis 38.
" montevidensis 40.
" Arechavaletanii 41.
Sobralia blanda 85.

Von S. 103–149. New Orchids von Ridley aus dem
Journ. Roy. Asiat. Society Bd. 50 (1908) 29–42.
& 126–143.
Rolfe in Torrey Bot. Club. IV (1895) S. 259–266
s. S. 151–163.